## [Course Overview](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live)

### [Course Overview](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live)

[Hi everyone! My name is Ross Bagurdes, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=0) [welcome to my course, Building and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=5.333333333333333) [Troubleshooting a Network with ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=9.333333333333332) [Skills. I'm a network engineer with 20](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=12.375) [years' experience building and managing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=15) [Enterprise networks and teaching people](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=16.875) [about them. This course was built to help](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=18.842105263157897) [people become as prepared as possible to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=22.210526315789487) [earn that CCENT certification by taking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=25.157894736842128) [the ICND1 exam from Cisco. In this course,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=27.33333333333333) [we're going to review the most important](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=29.999999999999986) [terminology from the previous 13 courses,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=32.411764705882355) [as well as build and troubleshoot a lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=34.882352941176485) [incorporating all of those ICND1 topics.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=38.176470588235325) [Some of the major topics we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=40.77777777777777) [cover are reviewing the most critical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=44.333333333333314) [terminology for that exam. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=47) [understand your learning style, which will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=49.1875) [help you retain information while you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=51.0625) [studying. We're going to design and build](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=53.05882352941176) [a network that incorporates all of those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=55.52941176470587) [ICND1 exam topics, and then we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=58) [troubleshoot that network we designed to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=60.35294117647061) [build those critical troubleshooting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=62.117647058823565) [skills that are so valuable as a data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=63.45454545454545) [network engineer. By the end of this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=67.09090909090908) [course, you'll have the resources you'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=69.25) [need to study for and retain as much](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=70.75) [information as possible to take that ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=72.75) [exam. Before beginning this course, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=75.47058823529409) [highly recommend watching and studying the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=77.94117647058818) [previous 13 courses in the ICND1 series.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=80.5) [After completing this course, you should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=84) [feel comfortable moving on to the ICND2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=87) [study materials, which will help you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=90.5) [prepare for the CCNA exam. I hope you'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=93.5) [join me on this journey to review ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=97.10526315789473) [exam topics with the Building and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=100.05263157894733) [Troubleshooting a Network with ICND1 Skills course at Pluralsight.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m0&clip=0&mode=live&start=102.26315789473678)

## [Review and Lab Network Drawing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=0) [This course is Building and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=3.375) [Troubleshooting a Network with ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=6.1875) [Skills, and this is for the CCNA 200-125](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=9) [and 100-105 exams. In this course, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=12.599999999999994) [going to review the last 13 courses, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=15.74999999999999) [will help get you prepped for the ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=19.421052631578945) [exam, which will earn you your CCENT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=23.210526315789465) [certification or Cisco's Certified](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=26.52631578947367) [Entry-Level Network Technician. In this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=28.411764705882348) [first module, we're going to do some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=30.764705882352928) [review of protocols and concepts and then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=34.05882352941174) [introduce the lab that we're going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=36.9047619047619) [for the rest of the course to build and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=39.952380952380935) [troubleshoot the network with all the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=43.38461538461539) [skills that we've learned so far. So our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=45.69230769230771) [goals in this module are to, first, review](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=48.7) [the OSI module and TCP/IP model and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=51.500000000000014) [protocols and concepts that are assigned](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=54.300000000000026) [to each layer. Now we have done this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=56.14285714285714) [before in a previous course, but I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=58.428571428571416) [just reiterate the importance of it, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=61) [we're going to go through the mapping of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=63.21052631578949) [those protocols once again. Second, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=65.73684210526315) [going to describe the ICND1 lab network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=67.6) [that we're going to use and then take that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=69.69999999999997) [network and create the drawing and label](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=72.39999999999995) [it with IP addresses, device names,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=75.1875) [interface names, and other information](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=77.8125) [that's relevant so that we can go build](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=80) [our network and do some testing,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=83.29411764705878) [troubleshooting, and observation of how all these protocols interact together.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=0&mode=live&start=85.76470588235287)

### [Reviewing the TCP and OSI Models](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live)

[If you watched the TCP and UDP course](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=0.5) [where we talked about those transport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=3.535789473684211) [layer protocols, I started that course off](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=5.812631578947369) [with the mapping of all these protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=8.376666666666667) [and concepts of data networking into the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=10.710000000000004) [OSI model. So up there at the top, we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=13.043333333333342) [the physical layer with our cabling, fiber](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=15.854999999999997) [optics. Then we have our data link layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=17.731875000000006) [with Ethernet, VLANs, and whatnot. We have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=20.333333333333325) [the network layer here with IP addressing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=22.951666666666668) [and routing protocols. Transport layer--we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=26.282500000000006) [have the TCP and UDP. And then up at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=28.154444444444444) [application layer, that's where we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=30.376666666666658) [TFTP, SSH, HTTP, protocols like this.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=31.71) [Understanding where these protocols fall](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=35.085) [in the OSI model is incredibly important](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=37.8975) [to your career in data networking. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=41.449999999999996) [realize it seems a little goofy at first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=44.03999999999998) [to have to memorize what layer each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=47) [protocol goes under. However, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=49.21052631578949) [long-term value of this is so enormous.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=50.78947368421055) [When we talk in data networking, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=53) [typically are talking about data link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=56.13133333333333) [layer protocols, network layer protocols,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=58.81533333333333) [or application layer protocols. When](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=60.99571428571429) [working in data networking and we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=63.138571428571446) [troubleshooting with other engineers, it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=65.71) [really important we understand which layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=67.37666666666664) [of the OSI model each protocol operates](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=69.37666666666661) [because when we communicate, we will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=71.87666666666665) [typically say, Oh, that is a layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=74.20999999999997) [problem, meaning it's probably related to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=77.32111111111105) [Ethernet or VLANs or trunking. Or we might](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=80.21) [say it's a layer 3 problem meaning it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=83.70999999999998) [something with IP or routing that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=86.37666666666661) [broken. We might also say it's a transport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=88.37666666666658) [layer problem, maybe TCP isn't working](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=90.6544444444444) [correctly, or we're seeing issues with TCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=92.32111111111102) [negotiating a three-way handshake.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=94.77666666666666) [Additionally, we might specify that it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=96.90999999999998) [an application layer problem meaning that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=100.10999999999997) [there's something up with the server and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=102.70999999999998) [somebody who supports the server needs to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=105.04333333333328) [take some action in order to get their](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=107.37666666666658) [system up and running again. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=109.80999999999997) [understanding the layer of the OSI model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=111.60999999999996) [that each protocol operates is incredibly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=113.71) [important in our communication with other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=116.94076923076919) [engineers. And although it seems a little](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=120.17153846153839) [hokey at first to have to go through and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=121.80090909090912) [memorize all this, the value is enormous.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=123.4372727272728) [So I highly recommend if you need to, go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=124.71) [back to the TCP and UDP course, and I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=128.085) [it laid out where all these concepts are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=131.835) [randomized on the screen. You can use that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=134.65736842105267) [then to go plot where each one operates.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=137.18368421052642) [Now we have the TCP/IP model and the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=139.71) [model. Typically, I've worked with the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=143.41588235294114) [model. I think the OSI model is a lot more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=146.29823529411757) [common in industry when we communicate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=149.55210526315798) [than the TCP/IP model. The OSI model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=151.4468421052633) [starts with a physical layer at the bottom](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=153.42428571428573) [there in layer 1 and goes up to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=155.32904761904766) [application layer at layer 7. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=157.47190476190482) [introduce the TCP/IP model right next to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=160.23631578947376) [this, it does map very nicely. Here in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=163.18368421052648) [TCP/IP model, application layer protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=166.86384615384617) [are mapped to application, presentation,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=168.7869230769231) [and session protocols, which is pretty](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=170.71) [common of how we actually map things in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=172.96) [data networking. Usually if it's not a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=175.96) [data link layer, network layer, or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=179.0629411764706) [transport layer problem that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=181.88647058823528) [troubleshooting, we consider it to be an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=184.23941176470586) [application layer protocol regardless of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=186.2889473684211) [what layer of the OSI model the actual](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=187.60473684210535) [protocol falls in. The transport layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=189.71) [here is nice because it maps directly with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=191.47470588235288) [the transport layer. The internet layer is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=193.82764705882337) [the network layer of the OSI model. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=196.26555555555555) [TCP/IP model combines the physical and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=199.37666666666664) [data link layers of the OSI model into a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=201.71) [single network interface layer. Now my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=203.78692307692305) [personal opinion is that the TCP/IP model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=205.585) [does make a little bit more sense.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=208.6475) [However, once again, we communicate in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=211.71) [data networking talking about the layers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=213.8276470588235) [of the OSI model usually in the terms of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=215.94529411764697) [layer 1 as physical, layer 2 as data link,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=219.04333333333338) [layer 3 as network, layer 4 as transport,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=222.04333333333346) [and layer 7 as application. If I add in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=224.71) [another piece of information here, if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=227.85999999999996) [talk about the datagrams and what we call](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=230.30999999999992) [them at each layer of the OSI model, down](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=232.98272727272726) [at the physical layer, we really don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=235.84636363636358) [have a name here, but effectively the data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=238.07363636363627) [that's being transmitted is a signal of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=240.92052631578954) [some kind, either a pulse of 1s and 0s](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=243.49947368421067) [over a copper wire or fiber optic or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=247.28894736842102) [pulses of electromagnetic waves through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=251.4994736842104) [space via wireless. Up at the data link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=254.13105263157874) [layer, we call the chunk of data with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=256.96) [header, we call that a frame. At the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=259.21) [network layer, we call it a packet. And at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=261.13105263157894) [the transport layer, we call it a segment.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=263.02578947368426) [It is critical when we are studying for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=264.71) [the CCNA exams that you understand the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=267.23631578947374) [difference between these three. It does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=269.4468421052633) [become challenging in communication and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=271.585) [data networking because oftentimes we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=273.7725) [refer to anything going across a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=275.96) [as a packet. That generic term packet does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=279.1310526315789) [refer to typically stuff going across a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=282.9205263157893) [network. However, when we're talking about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=286.2363157894734) [it in terms of troubleshooting and support](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=288.5521052631578) [and taking an exam, a packet has a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=291.1310526315787) [ridiculously precise definition as a layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=294.07842105263154) [3 function at the network layer of the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=296.2889473684209) [model or internet layer of the TCP/IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=299.60473684210496) [model. So make sure you have these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=302.11000000000007) [memorized and are able to correctly speak](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=304.56000000000023) [in the terms of these because when we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=307.0100000000004) [talking about Ethernet, we're talking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=310.28142857142865) [about Ethernet frames, not Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=312.4242857142859) [packets, not Ethernet segments. When we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=314.50999999999993) [talking about internet protocol, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=316.9099999999998) [talking about IP packets. And we're not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=318.9099999999997) [talking about IP frames, and we're not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=321.2725) [talking about IP segments. And when we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=323.46) [talking about TCP or UDP, we're talking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=326.21) [about segments. And there is no such thing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=329.71) [as a TCP packet or a TCP frame. So when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=332.27521739130424) [we're working with this in the most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=334.883913043478) [precise way, frame/packet/segment have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=336.71) [very precise definitions as far as what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=338.5561538461538) [they are. Make sure you know that before](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=341.78692307692296) [you enter the CCNA exam, and also to have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=344.8100000000001) [that terminology under your belt to be a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=347.9600000000003) [successful network engineer I believe is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=350.63307692307694) [incredibly important as well. If we talk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=352.47923076923087) [about the devices that operate at each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=354.76000000000005) [layer of the OSI model, down at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=357.2100000000002) [physical layer, this is where we have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=360.0100000000004) [hub. A hub is nothing more than a signal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=361.835) [repeater. The data link layer, layer 2, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=363.5225) [have a switch. A switch is a device that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=365.46) [has an ASIC in it that can read frame](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=367.71) [headers. Sometimes switches are called](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=370.2933333333333) [bridges or bridges are called switches. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=373.20999999999987) [another type of device there that I don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=376.9004761904762) [have listed is the bridge, but a bridge](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=378.4242857142858) [and a switch are effectively the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=379.94809523809545) [thing. We're going to learn more about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=381.76000000000005) [that in a course coming up very soon when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=384.2100000000002) [we talk about spanning tree protocol where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=387.3600000000004) [spanning tree protocol literally refers to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=390.5099999999998) [switches as bridges. Up at layer three, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=393.30999999999966) [have a router. Router's entire purpose is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=396.5521052631578) [to move packets from one interface to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=399.1310526315787) [another interface. Those routers do that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=401.71) [by grabbing frames off of the wire via](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=403.585) [their interface. They strip the frame](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=406.085) [header off, take a look at the packet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=408.26555555555564) [header, find out the destination address,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=411.37666666666695) [rebuild the frame, and then send the frame](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=413.71) [out on the wire again. So the job of a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=416.17153846153855) [router is to move data from one network to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=419.2725) [another network. Another way we can look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=422.085) [at that is the router breaks up our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=424.04333333333324) [broadcast domains. What I'm referring to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=426.17666666666645) [here as networks, we're actually referring](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=428.2484615384614) [to broadcast domains. Now up at layer 4, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=430.55615384615356) [have the transport layer. The device I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=433.8100000000001) [have listed for that is a firewall. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=436.2600000000003) [don't think that you commonly need to know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=438.9480952380952) [that the firewalls are a transport layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=440.85285714285715) [device or you can see up there application](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=442.51952380952383) [layer device, but they typically are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=445.31000000000006) [transport layer devices because stateful](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=448.5100000000002) [firewalls do keep track of the state of a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=451.176666666667) [TCP session, and they will actually filter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=454.9099999999998) [traffic based on what's expected to happen](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=457.70999999999964) [in that TCP conversation. So firewalls](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=460.65117647058827) [really are doing a deep dive into TCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=463.47470588235313) [operation. And modern firewalls, the next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=467.2394117647063) [generation firewalls, I call these layer 7](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=469.585) [or layer 8 firewalls. What those are doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=472.21) [is they're actually getting into the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=475.21) [application layer information, and they're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=477.46) [making sure that not only is the TCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=479.335) [session legitimate, but it's also making](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=482.4322222222224) [sure that whatever application layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=484.76555555555586) [protocol we're using is also legitimate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=486.71) [and that we're not trying to sneak](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=488.474705882353) [malicious traffic through, say, a port 80](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=490.5335294117649) [conversation, which is supposed to be a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=493.29823529411755) [conversation to retrieve a website via](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=497.00411764705854) [HTTP. What we could actually do is put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=500.18058823529367) [malicious traffic in that payload and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=503.18058823529424) [attack the web server. So our layer 7 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=505.2982352941179) [layer 8 firewalls actually are inspecting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=508.2889473684211) [that information and making sure that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=510.1836842105264) [HTTP traffic is actually HTTP. If we pull](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=512.3942105263159) [that out and take a look at some protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=515.1600000000002) [here, the protocols that we looked at that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=518.3100000000004) [were very common at each layer, here we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=520.71) [have at the application layer we talked](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=522.71) [about HTTP, HTTPS, Telnet, SSH, FTP, TFTP,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=524.46) [SFTP, SNMP (simple network management](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=528.5923529411764) [protocol, which we'll get into in a few](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=531.8276470588233) [courses down the road). We have SMTP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=536.46) [(simple mail transfer protocol), POP3, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=539.085) [IMAP. We didn't talk a lot about those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=541.335) [three email protocols. However, they are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=543.46) [out there, and we do use them. So I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=544.96) [skipped over the presentation and session](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=547.2433333333333) [layers and went right to transport layer.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=548.8433333333332) [The reason I do this is that in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=550.71) [personal experience, we do not really](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=553.4099999999996) [discuss stuff happening at those two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=555.2099999999994) [layers as separate things. Now when you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=557.1805882352942) [take the CCNA certification exams and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=560.4747058823532) [you're considering the world from Cisco's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=563.2982352941181) [perspective, what we need to do is realize](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=565.8152631578947) [that at the presentation layer, we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=568.7626315789472) [stuff happening there. And the stuff that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=571.3415789473681) [Cisco and the academic world believe is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=573.0433333333331) [happening there is things like file](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=574.5988888888883) [formatting and encryption. Now file](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=576.21) [formatting, I'm talking things like JPEGs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=578.71) [or MPEGs or GIFs, things like that. Those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=581.71) [are technically considered presentation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=585.31) [layer protocols, as well as some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=586.9099999999999) [encryption is supposed to happen at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=589.3099999999997) [presentation layer. My personal experience](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=591.8276470588237) [is that any presentation layer stuff](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=593.5923529411767) [happens outside of the OSI model entirely.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=595.71) [If I take a picture with my camera, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=597.9372727272731) [stores it as a JPEG file, but it doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=600.80090909091) [involve the data network at all. I'm just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=603.567142857143) [taking a picture. I literally push the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=605.8528571428577) [button on my digital camera. My digital](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=607.9099999999999) [camera doesn't even have a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=610.0099999999995) [connection on it. So it's creating a JPEG](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=611.8099999999993) [image, and it's not even using the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=614.3766666666669) [model here. So the presentation layer for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=617.0433333333339) [our perspective when we're actually doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=619.3766666666669) [it in practical world, we don't really use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=621.3766666666671) [that much. When we're taking exams and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=624.31) [pretending like we are Cisco experts of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=627.1099999999998) [the OSI model, then we're going to put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=629.9099999999996) [JPEG, MPEG encryption and other formatting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=633.180588235294) [up at the presentation layer. The session](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=635.6511764705879) [layer--technically we have a protocol that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=638.5335294117647) [works directly with HTTPS called the TLS](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=641.0041176470586) [or transport layer security, which sounds](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=643.8864705882348) [a little odd that TLS is going to be a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=646.1836842105263) [session layer protocol, but technically it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=649.8678947368419) [is a session layer protocol. People could](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=652.01) [argue with this, but now we're doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=654.1099999999997) [encryption at the session layer. There are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=656.2099999999994) [other session layer protocols like the ICA](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=658.4372727272728) [Citrix client. From our perspective as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=660.9827272727274) [engineers, what you need to know is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=663.0433333333335) [there are session layer protocols like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=665.7100000000005) [remote procedure call and TLS and ICA. You](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=667.71) [might be asked about those should you take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=670.9099999999999) [an exam on it. But in the real world, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=674.1099999999997) [don't actually use that information. To](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=677.424285714286) [move on here, we go to the transport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=679.138571428572) [layer. This is, of course, TCP and UDP.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=681.4242857142867) [When we go down to the network layer, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=683.9372727272731) [have IP as the primary protocol there, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=686.80090909091) [then we can put other protocols on top of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=689.4242857142858) [that like TCP/UDP. But ICMP, Internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=692.6385714285718) [Control Message Protocol, which is what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=695.1217647058825) [Ping uses to send messages back and forth,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=697.9452941176473) [is also a network layer protocol. It just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=701.71) [cannot run independently from IP. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=705.4023076923077) [we're going to use ICMP at the network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=708.46) [layer, we must also use IP. At the data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=711.46) [link layer, we have protocols like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=714.861052631579) [Ethernet, PPP, or 802. 11 protocols or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=717.163157894737) [wireless Ethernet protocols. And then down](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=719.8489473684212) [at the physical layer, we have wireless,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=722.1183333333332) [Glass, and RF or photons, radiofrequencies](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=724.7277777777774) [or photons transferring information wirelessly.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=1&mode=live&start=726.9644444444439)

### [Protocol Hierarchy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live)

[To take this a step further, something](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=1.062) [that you'll definitely need to know is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=3.006444444444444) [transport layer port numbers for each of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=5.2286666666666655) [the most common layer 7 application layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=8.062) [protocols. So here I've listed them out,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=11.562) [HTTP, HTTPS, Telnet, SSH, FTP, SFTP, POP3,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=15.21989473684211) [IMAP, SMTP, DNS, SNMP, and TFTP. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=18.904105263157902) [if you notice on the third row down, I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=22.728666666666665) [listed the transport layer protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=25.728666666666655) [involved there. So most of them are using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=27.395333333333316) [TCP. And then we have DNS and SNMP that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=29.862000000000005) [can use TCP or UDP. But typically you'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=32.562000000000005) [find that DNS and SNMP are almost always](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=35.562) [using UDP for their transport layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=39.562) [protocol. TFTP always uses UDP down at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=42.562) [transport layer. The port numbers there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=45.39533333333335) [I've listed. If there's a single number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=47.39533333333336) [there like 80, 443, 23, and 22 for our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=49.728666666666676) [first four, those typically mean that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=52.7286666666667) [those are the default single port number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=54.72866666666671) [for each of those protocols. FTP uses two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=57.58831578947367) [port numbers, 20 and 21, one for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=60.95673684210523) [authentication and one for data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=63.79884210526316) [transmission. SFTP if you notice uses the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=65.64094736842104) [same port number as SSH. The reason there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=68.21989473684206) [is that we're taking the FTP protocol, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=70.96199999999999) [we're literally just pushing it through an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=73.36199999999997) [SSH tunnel. POP3, IMAP, and SMTP all have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=75.46199999999995) [two numbers listed there with a slash. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=78.36969230769232) [top number I have listed is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=81.43042105263157) [unencrypted port number, and the bottom](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=84.0093684210526) [number I've listed is the encrypted port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=86.21989473684205) [number. So each of these three protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=88.72866666666665) [can either operate in an encrypted mode or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=91.06199999999995) [unencrypted. And the port numbers are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=93.72866666666658) [different depending upon if we're using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=96.20485714285715) [encryption or not. DNS is always port 53.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=98.77628571428573) [SNMP is port 161. And TFTP is port 69](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=102.72866666666665) [dude. I always remember Bill and Ted when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=107.52866666666664) [I think of that. All of these protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=110.51199999999996) [require then IP to transport the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=113.31199999999991) [information across our data network. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=115.38018181818181) [then once we put it inside of an IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=117.28927272727269) [packet, we can put it in all kinds of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=120.152909090909) [different frames whether that be an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=123.11199999999998) [Ethernet frame, a PPP frame if we're doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=125.21199999999995) [it over dial-up or a serial link, or an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=128.01199999999992) [802. 11 frame if we're sending it over a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=130.82670588235288) [wireless network. My advice here before](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=133.4737647058822) [taking the ICND1 exam or the ICND2 exam or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=135.462) [the CCNA exam, whichever exam you're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=138.61199999999994) [to be taking, is to make sure that you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=141.062) [study and memorize and know this OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=145.79884210526305) [model/TCP/IP model hierarchy, know the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=149.48305263157874) [protocols that operate at each layer, be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=151.7286666666667) [able to identify the port numbers of those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=154.0620000000001) [protocols, know which protocols at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=156.72866666666684) [application layer use TCP or UDP, and then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=159.2842222222223) [understand how that hierarchy allows us to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=162.83977777777795) [build segments, packets, and frames so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=167.062) [that we can send them over the wires to accommodate data networking.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=2&mode=live&start=173.062)

### [Examining Our Lab Environment](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live)

[Well let's move on to this next section](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=0) [where we talk about the lab we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=3.5043478260869563) [build for the ICND1 exam review. Now the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=7.446739130434782) [topics that I wanted to include in this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=10.601315789473684) [are pretty much everything that we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=12.706578947368424) [covered so far, which includes IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=14.285526315789479) [addressing, static and dynamic routing,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=16.789285714285715) [Ethernet, VLANs, trunks, and port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=19.64642857142858) [security, effectively layer 2 stuff,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=22.503571428571444) [serial links, another layer 2 technology](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=24.548684210526314) [that we didn't spend a ton of time on, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=26.759210526315787) [you're going to need to know just a little](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=30.325) [bit about for the ICND1 exam. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=32.575) [to be talking a lot more about it for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=34.65833333333333) [ICND2 exam, and we'll spend ample time on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=37.574999999999974) [that in another course. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=39.90833333333329) [talk about static and dynamic Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=42.360714285714295) [Address Translation, access control lists.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=44.93214285714288) [We'll set up a web server. In addition,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=47.075) [we're also going to talk about this thing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=49.47499999999998) [called a voice VLAN that we use for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=51.87499999999996) [voice-over IP phones and how the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=54.47500000000001) [voice-over IP phone actually has a little](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=56.57500000000002) [switch in it that allows us to build a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=59.02500000000003) [trunk link to that phone and then hook up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=61.65394736842106) [a PC to that. So we'll take a look at how](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=64.02236842105263) [that operates as well in our drawing here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=66.94166666666666) [So the equipment that I wanted to use, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=69.075) [equipment that I've recommended and have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=72.07499999999996) [been using throughout the course is three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=74.07499999999993) [1841 routers. Those 1841 routers each have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=76.94166666666668) [two fast Ethernet interfaces. They also](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=80.20833333333336) [have two serial interfaces. I have two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=83.13382352941177) [2960 switches. Those are my layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=86.83970588235296) [switches. I know they're layer 2 because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=90.54558823529415) [they start with the number 2. And then I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=92.7113636363636) [have my 3560 switch, which is my layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=95.165909090909) [switch because it starts with the number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=97.575) [3. So I have that 3560 switch in there as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=99.325) [well, and I want to use that 3560 as both](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=101.825) [a router and a switch. You can see over on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=104.70000000000005) [the right-hand side of the drawing, I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=107.61666666666676) [a cable going from my 2960 switch to a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=109.93214285714288) [voice-over IP phone, and then my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=112.5035714285715) [voice-over IP phone is hooked up to a PC.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=114.21785714285726) [What we want to do here is start to label](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=116.98409090909088) [this drawing now with interface numbers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=120.16590909090901) [and device names. So the first thing I'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=122.075) [do is I'll bring in some interface numbers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=125.44342105263156) [and device names. The big reason I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=128.81184210526314) [do this is that I want to pre-plan my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=131.575) [network. I don't want to just hack a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=133.825) [network together and start plugging things](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=136.7972222222222) [in without knowing what interfaces have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=139.1305555555555) [what IP address on them or what interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=141.43214285714285) [connect to what other device. So on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=144.28928571428574) [drawing here, I'm going to make a very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=146.89318181818183) [clear labelling of what interfaces I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=149.07500000000007) [plugged in so that I can set up my lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=150.98409090909104) [network exactly as my drawing is. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=154.47500000000002) [going to make troubleshooting incredibly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=157.67500000000007) [easy. I usually see newbie students not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=159.6750000000001) [wanting to build a drawing, and I don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=162.325) [know why. I really can't fathom why](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=165.325) [because when we're building a complex](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=167.8397058823529) [network, and we're incorporating lots of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=169.95735294117637) [different topics into it, without having a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=172.075) [drawing, it becomes nearly impossible to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=174.65394736842111) [do any kind of real troubleshooting.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=176.86447368421065) [Without the ability to do any kind of real](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=179.075) [troubleshooting, what ends up happening is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=181.7750000000001) [you end up with a broken network, no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=183.57500000000016) [ability to troubleshoot it, and you end up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=185.93214285714282) [confused and frustrated. And usually at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=188.21785714285704) [this point what I see students do is they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=189.825) [just start slamming their hands in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=192.075) [keyboard putting any command in anywhere](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=193.825) [possible for the hope and glimmer of hope](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=196.01944444444442) [that something might happen to give them a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=199.1305555555555) [clue as to why their network is broken.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=201.75681818181815) [And I'm telling you right now that it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=203.5749999999999) [the wrong way to approach this. The way we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=205.39318181818166) [want to do it is a very methodical, clean,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=208.07500000000005) [and detailed approach with a very nice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=211.07500000000013) [drawing. If you're a new engineer, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=213.3691176470588) [you're entering a network that doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=215.42794117647048) [have a drawing, what a great opportunity](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=217.19264705882335) [to learn about how the network is set up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=219.4867647058823) [by building a drawing. You can go back to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=222.66323529411753) [the troubleshooting course when I talked](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=226.18026315789479) [about using CDP to build a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=228.70657894736854) [diagram. So we have this drawing set up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=231.65394736842126) [now with the devices labelled. We have our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=233.7220588235295) [interfaces labelled. And now we need to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=235.60441176470607) [some layer 2 stuff. So let's take a look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=238.19264705882347) [at trunking. So I've highlighted the links](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=241.3691176470587) [that I want to make trunk ports with here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=243.6375) [in purple. Over on the left-hand side of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=246.45) [the drawing connected to the 2960-2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=248.50357142857143) [switch, I have the web server that I want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=249.93214285714288) [to hook up on VLAN 80, and then I have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=252.075) [PC that I want to hook up on VLAN 20. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=255.21785714285704) [that switch 2960-2 needs two VLANs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=258.47499999999997) [assigned to it, which means that the link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=260.87499999999983) [between the 2960 and the router is going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=264.07499999999965) [to have to be a trunk link, which means](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=267.07499999999993) [F0/1 on router 2 or R2 is going to have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=270.07499999999976) [be configured as router on a stick. Then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=273.7416666666662) [on the right-hand side of the drawing,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=276.17500000000007) [you'll see that F0/2 of my 2960-1 switch,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=278.27500000000015) [that is also going to have to be a trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=280.7113636363636) [link, and we're going to put two VLANs on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=283.89318181818174) [there, VLAN 10 for our voice traffic, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=286.75681818181806) [VLAN 15 for our data traffic. And the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=289.81413043478244) [reason we do this is that later on, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=292.94456521739096) [going to learn that we have to apply some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=296.4559523809524) [quality of service rules to our voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=299.88452380952407) [traffic so that our voice traffic always](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=302.5511904761909) [gets priority on our network, and that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=305.1338235294118) [data traffic (emails, websites, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=307.9573529411767) [things) that those get paused temporarily](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=309.7220588235297) [while the voice traffic gets priority, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=312.4279411764707) [that should make some sense because we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=315.7220588235297) [really don't want to have to have our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=318.7416666666666) [phone call interrupted because somebody](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=321.40833333333313) [else is streaming a movie on Netflix or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=323.0749999999997) [watching the NCAA Final Four basketball](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=326.1583333333334) [tournament. So regardless of what's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=328.65833333333353) [causing all the network traffic, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=330.7220588235295) [definitely want to prioritize the voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=333.19264705882375) [traffic because a phone call is going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=335.663235294118) [be way more important than somebody's data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=338.4083333333332) [stream of some video. So we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=340.7416666666664) [have to set up those trunk links. So I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=342.9638888888889) [labelled my trunk links there. The trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=344.96388888888896) [link on F0/1 of the 2960-2 switch is going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=346.7065789473684) [to have VLANs 20 and 80 on it. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=349.5486842105264) [the trunk link coming from the 3560 going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=352.8369047619048) [to the 2960-1 is going to have VLANs 10](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=355.88452380952407) [and 15. Next, let's take a look at IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=359.31309523809574) [addresses. So we'll start slow here. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=362.22884615384623) [start with R2 and specifically the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=364.5125) [connection to the trunk link on F0/1 of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=367.1375) [R2. So in the trunk link, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=370.6375) [set up two sub-interfaces. On F0/1, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=372.9797619047619) [going to set up F0/1. 20 and. 80 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=374.6464285714286) [assign those IP addresses accordingly. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=377.66323529411756) [for this example, I'm keeping my IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=380.8397058823527) [addressing super, super simple and using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=384.5455882352937) [/24s everywhere. The one thing I'm not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=386.8250000000001) [going to go over in detail here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=389.27500000000026) [reviewing the IP address exercises of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=392.075) [determining whether an IP address is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=394.19264705882364) [network address, host address, or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=396.6632352941179) [broadcast address or figure out given a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=398.4638888888889) [specific IP address what network is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=401.1861111111113) [IP address on. You can do all of those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=403.9083333333337) [exercises by going back to course 2 where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=406.98409090909087) [we talk about all of the network layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=409.52954545454537) [addressing fundamentals that you need. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=412.075) [we'll set up R2 like that. Next, we'll go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=413.575) [onto the 2960-1 switch here. Now we need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=416.40833333333336) [that VLAN 10 and VLAN 15 here. So on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=419.963888888889) [3560, I'm going to set up two VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=424.07499999999993) [interfaces, one for each of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=426.74166666666645) [networks--one for the voice network and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=428.74166666666633) [one for the data network. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=430.7416666666666) [assume that there's a trunk link for 10](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=433.40833333333313) [and 15 coming out of F0/1 of our switch.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=436.07499999999965) [Next what we'll need is we'll need some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=439.25681818181823) [networks to use to connect the routers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=442.1659090909092) [together. So here between router 1 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=444.71136363636384) [router 2 on our serial link, I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=447.25681818181823) [use the 10. 0. 0. 0/30 network. From](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=450.5295454545456) [router 1 to the 3560, we're going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=453.43863636363636) [10. 0. 0. 8/30. And then from router 3 to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=456.7113636363637) [the 3560, we're going to use 10. 0. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=460.34772727272747) [12/30. And then between R2 and R3, we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=463.87499999999983) [use 10. 0. 0. 4/30. So for those linking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=467.07499999999965) [networks where we only have two devices](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=470.33815789473687) [connected to the network, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=472.5486842105264) [use that /30 subnet mask, which only gives](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=474.75921052631594) [us two host addresses. And what I'll do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=477.17500000000007) [then is I'll label the IP addresses we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=479.57500000000016) [going to put on each interface. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=481.86447368421045) [instead of writing out the whole IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=483.7065789473682) [address next to the interface, that gets a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=485.54868421052595) [little messy with the drawing, so I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=487.98409090909087) [going to say that serial 0/0 of router 1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=490.21136363636356) [has an IP address of 10. 0. 0. 1/30 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=493.075) [serial 0/0 of router 2 or R2 has the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=497.47499999999997) [address 10. 0. 0. 2/30. And I've labelled](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=501.87499999999994) [that throughout the drawing. So this will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=504.975) [be the master drawing we use for the rest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=507.0750000000001) [of this course to build and troubleshoot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=509.7750000000002) [this data network. As we move through it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=512.0749999999999) [we are going to add more and more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=514.7416666666669) [information to this because what we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=517.4434210526316) [find out is that although this drawing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=519.653947368421) [will get us very far, it won't get us](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=522.2328947368419) [entirely all the way to have a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=524.9472222222223) [that we can manage and support. Let's wrap](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=526.6916666666668) [up what we've done here so we can go move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=528.5714285714287) [on to actually building this network using all the skills that we've learned so far.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=3&mode=live&start=531.428571428572)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live)

[So to wrap up, we've reviewed the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=0) [model and the TCP/IP model and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=3.4454736842105262) [protocols and concepts affiliated with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=6.460263157894737) [each one. We've described our ICND1 lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=8.583) [network and all the concepts that we want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=11.383000000000003) [to include in that lab network. Then what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=14.583000000000006) [we've done is we've labelled and IPed the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=17.738555555555557) [lab network drawing that we've created.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=20.84966666666667) [This is going to be our base for the rest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=23.183) [of the course. I hope you enjoyed this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=25.814578947368425) [module. Let's move on to some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=27.919842105263164) [demonstration now of actually configuring](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=30.025105263157894) [and setting up that network so that we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=31.867210526315787) [go on and do some real hardcore](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=35.183) [troubleshooting and support and enhance our skill set of the ICND1 topics.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m1&clip=4&mode=live&start=42.183)

## [Building the ICND1 Lab Network: Routers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=0) [This next module, we're going to start](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=3) [building the ICND1 lab network that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=6.5) [designed in this course. Since there's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=9.647058823529413) [lot of configuration going on here, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=12.529411764705886) [going to start with the routers. This next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=15.3125) [module after this we'll do the switches.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=17.8125) [If we look at our goals this module, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=20) [going to start by building this ICND1 lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=22.500000000000007) [network. We're going to start with just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=24.722222222222236) [the routers. And what I'd like to do here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=26.428571428571423) [is use a combination of the routers and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=28.57142857142856) [Notepad to help us build the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=32) [configurations that we can use on these devices.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=0&mode=live&start=38)

### [Demo: Configuring R3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live)

[So in the demonstration, we're just going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=0) [to build this lab network. So here's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=4.137583333333333) [lab network that we're going to use. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=7.950142857142857) [want to start with one of the more simple](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=10.235857142857148) [routers to configure here and move our way](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=12.807285714285726) [up to the more complex stuff. The simplest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=14.683909090909086) [router that we have here is R3. It only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=16.5020909090909) [has two interfaces configured on it. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=18.807285714285715) [we're going to start with R3 and then move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=21.30728571428572) [on to the rest of the network. One of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=24.183909090909093) [things that I did not list when we were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=26.950142857142854) [going through the description of this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=29.521571428571416) [our loopback interface address. Now it's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=31.52157142857141) [good idea to set a loopback interface on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=34.426333333333346) [our routers. What we can use that for is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=38.159666666666695) [an IP address to SSH to or to ping to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=41.320272727272744) [determine the status of R3. And this is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=44.502090909090946) [good idea because if for whatever reason](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=47.72936363636363) [F0/0 goes down, we can still reach 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=50.592999999999975) [99. 3, or if F0/0 is up and F0/1 is down,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=54.274818181818134) [we can still reach 10. 0. 99. 3. We don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=58.468) [have to worry about remembering the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=62.218) [addresses for each interface on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=64.63845454545454) [router. And then when we try to SSH to it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=66.27481818181813) [if that interface that we know the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=69.0020909090908) [address is down, the router might be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=71.23585714285717) [available, but we may not be aware that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=73.23585714285721) [it's available. So my point here is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=75.52157142857155) [that loopback interface is going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=77.98773684210524) [very valuable for us long term. Let's look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=80.19826315789467) [at the tasks that we have before we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=82.54754545454547) [configure R3. The first thing we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=84.36572727272734) [to do is put the base configuration on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=85.95663636363648) [that device. That includes securing user](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=88.593) [mode and privileged mode, also enabling](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=91.593) [SSH, and enabling SSH means that we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=94.593) [to configure a hostname and a domain name](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=96.42633333333333) [and some other items like a username and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=97.95014285714285) [password. So we're going to put that base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=99.95014285714286) [configuration on our router. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=103.37871428571431) [we're going to configure the interfaces.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=105.843) [Here we have three--F0/0, F0/1, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=108.093) [loopback 0. So we're going to configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=110.343) [that loopback IP address. And then we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=112.40878947368418) [going to use OSPF as our routing protocol](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=114.25089473684203) [here, which means that we are going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=116.53744444444445) [advertise the three networks that are on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=120.09299999999999) [this router. One's on F0/0, one's on F0/1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=123.20411111111109) [and one's on loopback 0. Last, we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=126.49300000000004) [to copy our configuration off of R3 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=129.69300000000007) [then paste it in Notepad so we can use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=133.04036842105265) [that to edit and configure the other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=137.3035263157896) [routers. So I've connected to my PC, and I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=140.61931578947392) [do have the rollover cable plugged in to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=144.72936363636373) [the console port of router 3. I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=148.36572727272747) [open up PuTTY. We can make that full](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=152.34299999999996) [screen. And right now it looks like there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=155.67633333333322) [is already a configuration on this router,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=158.54299999999995) [and it's called router A (RtrA). So what I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=160.9929999999999) [need to do is I need to erase this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=163.8756086956522) [configuration and reload my router so I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=166.22343478260885) [have a fresh device to work with. So the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=168.04952173913068) [commands to do that if you don't remember](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=171.2805) [are erase, startup-config. It's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=174.7805) [say, Hey, you're about to erase all these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=176.843) [files, and that's completely okay. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=178.843) [exactly what we want to do. And then in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=180.44299999999998) [order for the router to erase the running](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=183.59299999999993) [config file, what we need to do is reboot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=186.3929999999999) [the router, so we type the command reload.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=188.95966666666675) [And it says, Do you want to reload? So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=191.093) [Yes. Every once in a while, it will ask](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=192.72936363636367) [you a question there. It'll say, Hey, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=194.36572727272736) [configuration has been modified. Do you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=197.093) [want to save it? And what it's asking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=200.093) [there is it's saying, Do you want to issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=203.093) [the copy running-config to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=205.343) [startup-config file? And the answer to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=206.593) [that question is No. Otherwise, you'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=208.19475000000003) [just undo what you just did. So you erase](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=209.84737500000008) [the startup-config file so it's blank. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=212.33895) [then when we do reload, it may ask you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=214.29650000000004) [that question, Do you want to save the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=216.81335000000007) [config? And what's that asking you is, Do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=218.843) [you want to copy the running-config to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=220.843) [startup-config, which is the exact thing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=223.34299999999996) [you just erased. So now we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=225.8429999999999) [wait for the router to reboot here. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=228.6555) [speed this up. We'll know that our router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=231.1555) [is booted without any startup-config file](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=234.46142105263164) [if we get this message, Would you like to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=237.3035263157896) [enter the initial configuration dialog?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=241.42633333333333) [And the answer to this question is always](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=243.09300000000005) [No. You on your own time can go try to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=245.7596666666668) [mess around with that. I do not recommend](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=249.09300000000007) [it. Every time I see a student that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=251.75966666666682) [accidentally says Yes to that statement](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=254.32027272727268) [ends up in a bit of a panic because the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=256.2293636363636) [questions that it starts asking you are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=259.36572727272727) [really obscure, and it tends to be a bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=261.27481818181803) [difficult to get out of. So if you do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=263.7293636363633) [accidentally say Yes there, you can do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=267.093) [Ctrl+Shift+6. That should get you out of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=270.593) [it. If it doesn't, just reboot the device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=272.67194736842094) [or continue through the questions until](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=274.7772105263155) [it's done and then reboot the device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=276.4055) [Anyway, we're going to terminate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=278.593) [autoinstall here because autoinstall and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=280.1555) [the initial configuration dialog are the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=282.0020909090909) [same exact thing. I'm going to move pretty](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=284.72936363636353) [quickly through the configuration because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=287.7596666666666) [we have done this before. So we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=289.42633333333316) [to go to privileged mode. And what I need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=291.74517391304346) [here is I'm going to have my drawing up at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=293.7016956521738) [all times so I can see what it is that I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=295.8756086956519) [actually configuring. And this will reduce](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=300.5929999999999) [the number of errors that I make along the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=303.29299999999984) [way. So we'll start by configuring the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=306.7596666666666) [hostname as R3. Next we'll put a domain](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=309.0929999999998) [name on here, ip domain-name. We'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=312.593) [this is Pluralsight. com. You can choose](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=316.093) [your own domain there. It doesn't matter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=318.5545384615384) [what it is. That information won't leave](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=319.63146153846134) [the router. Next we can create a username.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=321.75966666666676) [We'll say username of ross password or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=325.093) [secret is Cisco. We'll do an enable secret](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=329.2106470588234) [of Cisco. That may have a space in there,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=333.9165294117644) [so I'm going to change that enable secret](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=337.5635882352943) [to Cisco. I don't want that accidentally](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=340.38711764705914) [to be space Cisco as the password or I'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=342.6839090909091) [never be able to get into my router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=345.5475454545454) [without having to do the password recovery](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=348.093) [procedure. Now that we have this done, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=350.0374444444444) [can actually create our crypto key. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=352.2596666666666) [we'll say crypto key generate rsa, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=355.4459411764705) [we'll pick a modulus of 1024. And then we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=359.5635882352939) [can set SSH to be IP SSH version 2. There](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=364.46799999999996) [we go. Now we can configure our lines, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=369.0513333333331) [we'll start with line con 0. On here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=373.17633333333293) [we're going to say password Cisco login,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=378.09300000000013) [and then line aux 0 password Cisco login.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=382.75966666666693) [Then line vty 0 through 4. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=388.093) [say login local to use that username and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=391.950142857143) [password that we've configured. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=395.3787142857146) [we're going to say transport input SSH,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=397.79888235294123) [and that will disable telnet and enable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=400.2694705882355) [SSH. Let's encrypt those passwords that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=402.74005882352975) [we've configured on our lines by doing the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=405.2805) [service password encryption. And now that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=408.7805) [has completed the base configuration tasks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=411.3430000000001) [for the router. The next thing we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=413.8430000000002) [to do is configure interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=417.0160769230768) [FastEthernetF0/0 and 0/1. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=418.9391538461536) [put an IP address on there, 10. 0. 0. 14](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=421.09299999999996) [for F0/0, and the mask on there was a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=424.4263333333331) [30-bit mask, which is 255. 255. 255. 252.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=427.42633333333293) [We'll do no shut on that interface and go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=430.82027272727265) [on to the next one, int f0/1. Here the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=434.9111818181816) [address is 10. 0. 0. 6 again with a 30-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=439.2468461538461) [mask. You know what we forgot to do is on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=443.0929999999997) [line con 0, we forgot to enter the logging](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=446.93915384615326) [synchronous command. So I'm going to issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=450.718) [no shutdown here. We'll go to line con 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=453.7805) [then and do a logging synchronous. Oh no.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=458.950142857143) [That y in there created some kind of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=464.093) [error. Let's try to get out of there.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=465.593) [There we go. So we'll do logging](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=467.093) [synchronous. There we go. Now it won't be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=470.04036842105273) [so disturbing while I'm writing that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=473.4087894736844) [configuration. So I've set the IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=475.6263333333333) [on my two Fast Ethernet interfaces. I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=477.4929999999999) [two more steps here, and that is to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=479.44300000000004) [configure interface loopback 0, and the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=482.2430000000002) [that I wanted there was 10. 0. 99. 3.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=484.6930000000004) [Regardless of the mask that I put on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=487.8321304347825) [IP address on the loopback interface, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=490.96256521739105) [router is going to treat it as a /32 mask.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=493.39734782608656) [The whole address is network portion. And,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=497.5215714285716) [effectively, what we're telling the router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=500.4459411764706) [here is that this interface has one single](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=502.5635882352943) [IP address. Since it's a loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=505.38711764705914) [interface, a virtual interface, I can't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=507.093) [really connect the loopback interface to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=508.593) [anything else, so it's always only going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=510.093) [to have a single IP. So we're going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=512.7596666666666) [that 32-bit mask here consistently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=516.5691904761907) [throughout our configuration. The last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=518.4929999999999) [step we need to do is to configure OSPF.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=520.4929999999998) [So we'll say router ospf 10, and we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=524.093) [going to advertise our networks, network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=527.7293636363639) [10. 0. 0. 4, with a mask of 0. 0. 0. 3,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=530.4566363636369) [which is our 30-bit mask. And then we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=535.3561578947366) [going to say that's an area 0. We're only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=537.8824736842099) [going to have a single area here. We have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=540.7596666666667) [another network of 10. 0. 0. 12, and this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=543.759666666667) [also has a mask of /30, so we'll use the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=546.7596666666674) [wildcard mask 0. 0. 0. 3. We need our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=550.4006923076921) [network for 10. 0. 99. 3, and that has a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=553.8622307692303) [wildcard mask of 0. 0. 0. 0, and we'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=557.7083846153839) [area 0. Now we have OSPF configured. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=560.9055) [I want to do is I want to save this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=563.3657272727272) [configuration in case my router gets](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=566.0929999999997) [unplugged or there's a power outage or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=567.7293636363632) [something of that nature. So we'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=570.169923076923) [copy running-config to startup-config.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=573.9391538461539) [We'll do a sho run when this is complete.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=576.093) [And what we'll do is we'll take that sho](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=579.2234347826085) [run, and we're going to copy it to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=582.353869565217) [Notepad. So we'll take that entire](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=585.8072857142857) [configuration that we just put on there,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=588.3787142857144) [and we'll open up Notepad and paste the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=591.3787142857145) [configuration. We're going to save this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=594.5666842105262) [configuration, put this in a folder on My](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=596.7772105263156) [Desktop. We'll create a new folder here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=599.7245789473681) [And we'll call it ICND1 Lab Config. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=604.7083846153843) [open that up, and we'll call this R3. txt.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=610.5666842105263) [And now I have my router 3's configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=614.8298421052635) [saved. I'm going to make another copy of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=618.6193157894744) [this. I'm going to save this as now my R2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=620.7596666666662) [configuration because what I want to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=623.1406190476181) [I'm going to come back and edit my R3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=625.3561578947366) [configuration and use it on R2. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=628.1982631578941) [minimize that for now. We've got R3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=630.6929999999999) [configured. There's not much I can test on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=632.7929999999996) [R3 right now because there're no other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=635.1929999999992) [devices that are up and running. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=637.2929999999998) [move on to R2 and configure R2 using our configuration from R3.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=1&mode=live&start=639.3929999999995)

### [Demo: Configuring R2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live)

[So let's take a look at the tasks now that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=1.414) [we need to configure R2. So R2 is going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=4.080666666666667) [be our next step here, and if we look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=6.2473333333333345) [it, we need a couple of things on here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=7.914000000000004) [Here we're going to configure our serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=9.414) [interface, as well as create](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=13.613999999999997) [sub-interfaces on F0/1. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=16.613999999999997) [configure a loopback interface, Loopback0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=19.472823529411762) [having an IP address of 10. 0. 99. 2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=21.237529411764697) [Let's take a look at the configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=24.414) [steps we need. We're going to use the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=27.21399999999999) [Notepad to edit our base configuration.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=29.52511111111111) [And then we're going to paste that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=30.858444444444437) [configuration onto R2. Let's go do that.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=32.414) [Make sure you have a copy of that drawing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=35.56400000000002) [up at all times. So let's open up the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=39.61400000000005) [config for R2 here that we saved. Now,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=43.0049090909091) [remember, the config I saved for R2 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=45.55036363636366) [really just the R3 config. What I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=48.095818181818224) [to do is I want to delete a lot of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=50.37400000000001) [information that I don't type in here. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=53.45400000000002) [this first part, I don't ever type that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=55.74733333333334) [into the router. My hostname for R2 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=58.41400000000002) [going to be R2. I don't use these boot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=61.08066666666671) [commands. My enable secret is going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=63.74733333333333) [the same. I realize that this is encrypted](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=65.88066666666666) [here, but when I paste that in there, it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=67.84257142857145) [going to keep that same enable secret as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=69.98542857142861) [Cisco. We're going to get rid of this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=72.04557894736841) [information here because I did not type](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=74.57189473684205) [that in. I did type in the domain name of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=76.78242105263149) [Pluralsight. We did not type in this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=80.46161904761904) [multilink information or this archive](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=83.1282857142857) [information. We did type in ip ssh version](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=85.0330476190476) [2, but before I could type in ip ssh](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=88.3306666666667) [version 2, I have to issue that crypto key](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=92.08066666666674) [generate rsa command, and then I tell it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=95.81400000000001) [1024 bits to make the key. That will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=99.01400000000005) [initiate the process to generate our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=102.25610526315789) [crypto key, and then we can turn on SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=104.78242105263156) [version 2. We'll get rid of some of these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=108.57189473684207) [extra lines. Loopback interface now is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=111.51399999999998) [going to be. 2 instead of. 3. If I look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=113.31399999999996) [my drawing, FastEthernet0/0 has an IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=117.01400000000002) [address of 10. 0. 0. 5, so we'll change](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=119.41400000000006) [this to 10. 0. 0. 5. And the mask on there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=123.01400000000011) [is a /30 mask subnet. Now one of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=126.93573913043477) [things we're going to find out is that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=129.67486956521742) [interface by default is in the shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=132.414) [state. And I don't have the no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=135.1362222222222) [command issued here. So in all of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=138.24733333333327) [interfaces that we want to use, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=140.84257142857138) [going to have to add the no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=142.84257142857132) [command. So I'm just going to add that in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=145.12828571428554) [there to each interface.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=148.08066666666673) [FastEthernet0/1--here's where we have our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=149.4140000000001) [sub-interfaces. So I'm going to take off](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=151.08066666666681) [my config here and just issue the no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=153.664) [shutdown command. And then what I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=156.664) [like to do is instead of trying to hack my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=158.91400000000004) [way through the configuration for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=161.91400000000016) [FastEthernet0/1 for my sub-interfaces,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=163.414) [what I'm going to do is actually configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=165.28066666666666) [those separately after I paste all this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=169.014) [information on the router. And the reason](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=171.5049090909091) [for that is is that I'm not 100% sure of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=173.41400000000007) [all the individual commands I need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=176.14127272727288) [enter. So we'll leave that as a task that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=178.59581818181823) [we need to do after we've got this base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=181.8685454545456) [configuration pasted on our device. Now on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=185.15084210526317) [S 0/0/0 here, right now it says no ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=187.7297894736843) [address, and it's shutdown. So we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=191.0455789473686) [to change that to have an IP address of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=194.02269565217392) [10. 0. 0. 2 with a 30-bit mask, and we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=197.93573913043483) [issue no shutdown before that. A lot of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=201.96955555555553) [people ask me about this no fair-queue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=204.1917777777777) [command. That is part of the default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=206.1362222222221) [configuration, and my advice is don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=208.81400000000002) [worry about it. We don't need a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=211.21400000000006) [configuration on Serial0/1/0. For OSPF, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=213.914) [need to advertise a few networks. One of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=216.164) [them actually is the 10. 0. 0. 4 network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=219.214) [That's attached to F0/0. We also need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=222.81400000000005) [advertise the 10. 0. 0. 0 network. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=225.61400000000003) [don't need to advertise 10. 0. 0. 12.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=228.01400000000012) [That's on a different router. We will need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=230.414) [to advertise our loopback interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=234.414) [address, which is 10. 0. 99. 2. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=236.914) [we're going to advertise the two separate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=241.08066666666667) [networks that are attached to F0/1. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=243.41400000000007) [we'll say network 10. 0. 20. 0 with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=245.95566666666664) [24-bit mask. And then network 10. 0. 80. 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=250.83066666666656) [with a 24-bit mask again. We don't need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=255.70566666666647) [use these commands here. We can leave](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=259.74733333333324) [those alone for now. We'll go make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=262.08066666666645) [that our line con 0 is configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=264.61400000000003) [correctly. Line aux and line vty--those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=266.7140000000001) [all look good. We can get rid of the rest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=268.5140000000002) [of those commands. And now I have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=272.5639999999999) [relatively complete configuration for R2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=276.1639999999998) [The only thing that we're going to need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=278.414) [do after I paste this configuration on to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=280.7618260869564) [R2 is I'm going to need to configure those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=282.8487826086954) [sub-interfaces on R2. Well let's copy this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=285.914) [config to our clipboard. I do have this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=289.414) [router all erased and ready to go, so all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=292.63139130434774) [we have to do is paste our configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=295.3705217391302) [into it. When we're pasting configurations](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=297.8053043478257) [into routers like this from Notepad, it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=300.164) [very important that we watch what we paste](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=303.2265) [into the router or the switch to make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=306.2711428571428) [that there were no errors when we pasted](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=308.8425714285713) [it. If there's an error that occurs, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=311.12828571428554) [going to want to go back and fix that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=313.0049090909092) [before we go on to configure any other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=315.05036363636395) [routers. So I'll move into privilege mode](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=317.24733333333336) [and config t. Right now that config is in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=320.16400000000016) [my clipboard, so I'm going to right-click](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=323.289) [to paste it. And I did notice that there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=325.4765) [was an error there when I pasted it. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=328.57400000000007) [I scroll up, we can take a look here and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=332.1740000000002) [see that my command crypto key generate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=335.6044761904762) [was missing a t in the crypto command and,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=336.9378095238096) [therefore, it gave me this error message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=338.65209523809546) [Invalid input detected at that caret](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=340.74733333333336) [marker. So when we paste this, we cannot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=343.4140000000001) [assume that everything is going to go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=346.96955555555576) [smoothly and perfectly. What we'll have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=348.84257142857143) [do is go back and look to make sure there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=350.5092380952381) [weren't errors in our configuration as it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=353.1917777777778) [got posted. Sometimes in the process of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=355.9140000000002) [pasting our configuration, we end up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=358.6362222222226) [losing a few bits of data in the transfer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=361.0610588235295) [over that serial link. And sometimes it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=364.7669411764709) [does not show up in our config after we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=367.4854285714285) [pasted it. So let's go back and fix the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=370.699714285714) [config that generated the error message.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=372.4909230769229) [We'll exit out of our line config and do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=373.414) [crypto key generate and then put in our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=378.3640000000001) [modulus of 1024. Now it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=382.7640000000002) [generate the rsa key, and now it says IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=386.0982105263158) [SSH version 2 has been enabled. If we go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=389.88768421052646) [back and look, when we try to enable ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=393.2711428571428) [ssh version 2, we got an error message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=395.8425714285713) [there. But after we generated our key, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=398.12828571428554) [did get this SSH version 2. 0 has been](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=400.7473333333332) [enabled, so we're good to go there now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=403.747333333333) [Let's do one last thing. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=406.414) [test to make sure that our router is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=408.6997142857142) [currently connected to router 3. It's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=410.98542857142843) [only other router that's configured. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=413.109652173913) [we send a ping message to 10. 0. 0. 6, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=415.5444347826085) [should get a response, which is excellent.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=419.37052173913) [We get a response. What we can do now is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=421.61400000000003) [go on and configure router 1. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=424.61400000000015) [modify our text file and config router 1 next.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=2&mode=live&start=428.414)

### [Demo: Configuring R1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live)

[Let's go on to our next router here, R1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=0) [and take a look at what we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=3.0162272727272725) [configure for that device. And then let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=6.032454545454548) [go configure it. So we're going to do that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=8.373000000000001) [router in the top part of our drawing.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=10.515857142857138) [This one's a little bit different because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=12.039666666666657) [we do have that connection to the internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=13.373) [there. So we're going to configure F0/1 to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=16.03966666666667) [get an address via DHCP. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=18.706333333333326) [put our loopback address of 10. 0. 99. 1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=21.286043478260872) [and we're going to need to configure R1 so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=24.025173913043485) [it can connect to the internet. Let's take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=26.764304347826098) [a look at all the steps we need to do in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=29.372999999999994) [order to accomplish that. So our tasks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=33.03966666666666) [here for R1 are we're going to use Notepad](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=35.32754545454546) [again to edit the base configuration of R2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=38.19118181818184) [to put the IP addresses for R1 on it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=40.7366363636364) [Next, we're going to paste that base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=43.843588235294106) [config onto R1. We're going to configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=46.314176470588215) [F0/1 to get its address via DHCP. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=48.515857142857136) [what we're going to do is we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=51.0872857142857) [take a look at the configuration, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=53.70633333333333) [we're actually going to configure then a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=56.03966666666668) [static default route using the information](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=58.37300000000003) [acquired from our DHCP server. Last, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=60.498) [going to configure port address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=63.123) [translation here to make sure that router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=64.998) [1 can connect to the internet. Let's go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=67.37299999999998) [over to Notepad and grab our R2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=70.0396666666666) [configuration and start to make some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=72.373) [changes to it. So up on Notepad here, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=75.70633333333335) [have R2 all set up. I'm going to save this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=79.89931578947368) [file as R3. No, we're not going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=84.10984210526313) [that. We're going to save it as R1 because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=87.0093636363636) [that is the device we're currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=89.463909090909) [configuring. We'll change our hostname](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=91.1002727272726) [then to R1, leave the enable secret and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=92.373) [all this the same. We're going to put that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=94.373) [t in our crypto command because I forgot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=97.248) [that last time. If we look at our loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=100.248) [interface, and I take a look at our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=103.12300000000003) [drawing, the drawing says to set that to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=105.4563333333334) [99. 1. Our FastEthernet0/0 interface has](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=107.78966666666678) [an IP address of 10. 0. 0. 9/30.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=111.373) [FastEthernet0/1--the address we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=117.373) [to put here is simply ip address dhcp. I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=119.373) [going to leave that interface in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=123.68878947368421) [shutdown state, though, so that we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=125.89931578947365) [actually see the router getting the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=128.10984210526308) [address from the DHCP server via the log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=130.62299999999996) [message. We go down next to interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=133.95633333333322) [Serial0/0/0 on router 1. The IP address of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=137.07299999999992) [that is 10. 0. 0. 1/30. Let's look at our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=140.67299999999983) [OSPF configuration. We need to advertise](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=144.8968095238095) [network 10. 0. 0. 0, which is this line](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=147.1825238095238) [right here. That stays the same. Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=150.6110952380952) [10. 0. 0. 4 is not connected to R1, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=153.37300000000002) [network 10. 0. 0. 8 is connected to router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=157.37300000000008) [1. We want to advertise our loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=160.97300000000013) [interface at 10. 0. 99. 1. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=163.08728571428566) [leave the rest off of here. So our OSPF is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=165.65871428571415) [configured. Line con 0, line aux 0, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=169.17299999999994) [line vty 0 are already configured for us.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=172.77299999999985) [So we should have a complete configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=176.373) [here. Let's copy this configuration now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=179.0952222222222) [and go to the console port of router 1. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=181.4285555555555) [right now I do have that rollover cable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=185.0396666666667) [plugged in to router 1. I do have router 1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=187.70633333333345) [all erased and ready to go for us. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=190.623) [we'll say, No, we don't want to enter the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=192.873) [initial configuration dialog. And once we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=195.123) [can get started here, we will paste our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=197.0396666666667) [configuration and then make sure that it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=199.70633333333345) [was all correct and do a little bit of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=201.973) [testing. We'll move into config mode,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=204.67300000000012) [paste my configuration. It looks like this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=206.47300000000018) [time my crypto key generate command worked](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=209.373) [correctly. And there we go. Let's go make](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=212.873) [sure that there were no issues here. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=215.37299999999993) [looks like I had an error message here. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=217.72082608695652) [says Error opening the tftp server at 255.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=220.8512608695653) [255. 255. 255, timed out. This is what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=223.63386956521754) [happens when we boot up our router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=226.23014285714282) [sometimes and it goes out and looks for a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=228.23014285714277) [configuration file on some unknown TFTP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=230.80157142857126) [server. We're going to get an error there.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=232.63615789473687) [That's nothing to be concerned about here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=235.16247368421062) [We did not create that. Looks like we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=237.373) [getting that error message again. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=239.83453846153856) [just trying to find the TFTP server that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=241.623) [doesn't exist. So we're just going to let](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=243.623) [that error message occur and not be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=245.623) [concerned about it. Scroll up and make](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=247.48411111111108) [sure there were no other error messages.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=249.42855555555548) [And it looks like everything was in good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=251.373) [shape here. So I'm going to ignore the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=254.28209090909098) [error message for the time being. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=257.191181818182) [exit out and I do a show IP interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=259.98169565217387) [brief (show ip int bri) now, right now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=262.7208260869563) [F0/1, my interface that's connected to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=265.15560869565184) [internet, is currently in an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=267.7366363636363) [administratively down state. So let's move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=270.0093636363635) [to configuration mode. And in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=272.498) [configuration mode, let's go into](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=274.373) [interface FastEthernet0/1 and issue the no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=276.248) [shutdown command. And what that will do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=278.2301428571428) [for us now is it will bring that interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=280.23014285714277) [up because I do have it plugged into the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=282.80157142857126) [internet right now. And hopefully in a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=285.7063333333332) [minute, we should get an IP address. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=288.0396666666664) [happened is my interface FastEthernet0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=290.65871428571427) [did move to a down state, and what I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=292.08728571428566) [is I looked over at my router and noticed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=294.94442857142843) [that one of the cables was loose. So I had](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=297.59039130434775) [to push that cable in a little bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=300.63386956521714) [further. Once I did that, it clicked, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=303.06865217391265) [we're good to go. I'm continuing to get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=304.7063333333334) [this error message of trying to find that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=306.23014285714305) [TFTP server. Again, this is something that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=307.998) [we don't need to worry about now. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=310.1855) [our router trying to find a TFTP server](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=312.98838461538463) [that isn't there. And this can happen](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=315.4499230769232) [sometimes when we boot up our router, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=317.7847647058824) [we have interfaces plugged in. So if one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=320.6082941176473) [of the interfaces was plugged in when I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=323.0872857142857) [booted this router up, what could happen](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=324.99204761904764) [is the router is going to think that it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=326.6587142857143) [connected to the network and it can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=329.623) [magically configure itself. It can't, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=332.248) [the router is trying to magically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=334.4639090909091) [configure itself. But since there's no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=336.64572727272736) [TFTP server with our magic config on it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=338.463909090909) [it's not going to work, and we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=340.645727272727) [get that time out message numerous times.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=343.1002727272723) [Once I did plug my cable in on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=345.58352631578936) [FastEthernet0/1, my line protocol changed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=348.8993157894734) [state to up. And then I did get my DHCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=350.78476470588237) [address here, 203. 0. 113. 92. So this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=354.90241176470613) [a very good state to be in here. If we do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=358.498) [show ip int bri, we see FastEthernet0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=362.623) [has the correct IP address now. One of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=365.248) [steps that we had to do here was to create](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=368.4730000000001) [a static default route. Well if I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=371.97300000000035) [show run once I can exit out of here by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=375.2960769230768) [typing exit correctly, the x comes before](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=379.14223076923037) [the i in exit. Once I do a show run, let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=381.8345384615379) [take a look at our configuration quickly.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=385.8729999999998) [Everything is set up in here, and we do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=388.373) [not currently have a static default route](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=392.0788823529414) [configured. If I do a show ip route,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=394.961235294118) [though, what we'll see is that I learned a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=397.8077826086955) [default route here, the gateway of last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=400.938217391304) [resort is my default route, and I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=403.373) [learn that default route from the DHCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=406.5729999999998) [server, and it's saying that my gateway of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=409.37299999999965) [last resort or my next hop for the default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=412.37299999999993) [route is 203. 0. 113. 89. And it did add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=415.37299999999976) [that static route to my configuration here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=418.623) [as the default static route. However, in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=420.8105) [my configuration, that static route does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=423.07300000000004) [not exist. So what I want to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=425.1730000000002) [manually add that static route to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=428.3230000000004) [configuration, and then I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=431.17299999999994) [advertise that route in OSPF so router 2,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=433.8729999999999) [router 3, and my 3560 switch all receive](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=437.4729999999998) [that default route automatically and I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=440.7063333333335) [don't have to manually configure it on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=443.03966666666696) [those devices. So I'll move into config t,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=445.65871428571427) [and all I'm going to do here is just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=447.9444285714285) [replicate what I've received via DHCP. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=450.515857142857) [I'm going to add ip route 0. 0. 0. 0 with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=453.10633333333334) [a mask of 0. 0. 0. 0, going to 203. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=457.87300000000005) [113. 89 as my next hop. If I do a show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=462.63966666666676) [route, nothing should change in my routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=467.5729999999998) [table, although something did change in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=470.37299999999965) [routing table. Do you notice this number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=472.92855555555553) [right here? Do you remember what that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=474.87299999999993) [number is? If you don't know what that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=476.81744444444433) [number is, that is the number of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=479.248) [administrative distance. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=481.748) [administrative distance of a static route](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=482.6806923076923) [is set to 1 by default. If I scroll up in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=484.52684615384624) [the list here, or if I scroll up in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=487.8947391304347) [commands, though, and look at before I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=490.9382173913041) [configured my static route here, my static](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=493.06865217391265) [route that I learned by DHCP had an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=495.7063333333335) [administrative distance of 254. So when I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=498.8174444444448) [learned my default route from DHCP, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=501.2860434782608) [does put a static route in there, but it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=503.4164782608694) [puts a static route in with an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=506.15560869565184) [administrative distance of nearly the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=508.42300000000006) [highest it can be of 254, meaning that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=510.1730000000002) [pretty much any route that I put in is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=512.9730000000003) [going to overwrite that 0. 0. 0. 0/0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=516.4184545454544) [route. Generally speaking, my config looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=519.6911818181815) [the same here. The next thing I want to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=522.1457272727267) [here is advertise my default route in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=526.1729999999999) [OSPF. To do that, I'm going to say router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=528.9729999999997) [ospf 10. Here I issue the command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=532.6671176470586) [default-information originate, and I hit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=535.5494705882348) [Enter. And what that'll do now is it'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=537.3730000000002) [now advertise my default route via OSPF.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=540.0396666666671) [So router 2, router 3, and the 3560 switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=542.373) [all will receive that once the neighbor](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=546.873) [relationships are built up, and we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=550.373) [transferring routing information. In my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=552.7847647058825) [routing table, I already see some OSPF](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=554.5494705882355) [routes showing up here, which is a good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=557.0200588235298) [indicator. It means that I probably have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=559.3174444444448) [something configured right on my router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=561.2618888888896) [because I am building some neighbor](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=562.9612352941176) [relationships with it looks like R2 at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=564.7259411764703) [this point. Now that I have my default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=566.7847647058818) [route advertised, the next thing I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=569.7729999999999) [do is configure port address translation.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=572.9729999999997) [So, first, I'm going to go into interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=575.373) [FastEthernet0/1. This is ip nat inside,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=577.7729999999997) [and that's a mistake, isn't it? IP nat](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=579.5729999999994) [inside? No, it is not. F0/1 if I look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=582.0730000000001) [my drawing, that is connected to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=585.5730000000003) [internet. So that is not ip nat inside,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=588.0230000000005) [that is actually ip nat outside. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=591.0653076923076) [change that and just say ip nat outside,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=594.0396666666668) [and then we'll go on to interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=596.7063333333338) [FastEthernet0/0, and that is going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=599.0396666666674) [ip nat inside. Last, we're going to also](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=601.5835263157894) [have to do interface Serial0/0/0. That is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=604.5308947368419) [also ip nat inside as both F0/0 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=607.173) [Serial0/0/0 are both on the inside-facing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=610.3729999999998) [side of my network. If our packet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=612.7729999999997) [traveling to the internet arrives on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=615.7063333333334) [Serial0/0/0 or F0/0, we want R1 to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=618.3730000000002) [recognize that that's the inside of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=621.4841111111114) [NAT translation and that F0/1 is our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=624.6806923076923) [outside. Now that we have that set up,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=627.9114615384615) [next what I'd like to do is add in our NAT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=631.2896666666664) [statement, ip nat inside source list. I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=635.8729999999994) [going to create list 1. I haven't created](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=638.6671176470588) [it yet, but we will create list 1. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=641.0200588235291) [then I'm going to say interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=643.773) [FastEthernet0/1 (f0/1) overload. Remember,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=646.1729999999999) [the interface that we list here is always](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=647.7301428571429) [the ip nat outside interface. It's the one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=650.587285714286) [connected to the internet. Overload in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=653.3203684210525) [that command is going to allow for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=655.2151052631575) [port address translation to take place.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=657.7414210526308) [Now that I have my NAT rule established,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=659.5158571428574) [the last thing I want to do here is create](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=661.8015714285721) [my access control list. I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=664.6507777777779) [create my access control list as a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=666.5952222222227) [standard numbered ACL. And I've already](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=668.5396666666675) [kind of set that number here. I've said](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=670.0788823529413) [the access control list is 1. So I'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=671.9612352941178) [access-list 1 permit, and then I'm just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=674.7230000000002) [going to permit the entire 10. 0. 0. 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=677.8730000000005) [network. Effectively what that's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=681.9230000000009) [do now is any device on the inside of my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=683.563476190476) [network is going to be allowed through the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=685.9444285714278) [NAT process. If I look at the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=687.973) [addressing on my inside network, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=690.3729999999996) [entire thing is addressed with the 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=692.1729999999993) [0. 0/8 network. It's actually a smaller](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=695.1730000000002) [subset of that, but using this access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=698.3230000000005) [control list will allow for any device on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=701.4730000000009) [the inside to communicate with the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=704.2191538461536) [internet. We can do a quick test of that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=706.0653076923072) [if I do a ping to 8. 8. 8. 8 using a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=708.9444285714285) [source of my inside interfaces, one of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=712.8015714285712) [them, I'll do the 10. 0. 0. 1 interface,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=715.051571428571) [and see if we get a response. And the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=718.1464545454542) [first one timed out there. Usually that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=721.26659090909) [because of some ARP issue or other issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=723.7164) [that's happening on the router. It's never](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=726.5820000000001) [to be a concern as long as the other four](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=728.873) [worked. If I do it again, I get all five](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=731.373) [successful pings. It looks like we're in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=733.873) [very good shape to allow our devices to communicate with the public internet now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=3&mode=live&start=739.373)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live)

[Let's wrap up what we've done here. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=0.192) [we've done is we've built all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=2.192) [router components of our ICND1 lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=4.192) [network, and we used Notepad to help us](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=5.96123076923077) [build those configurations. Now in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=9.03815384615385) [next module, we're going to do the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=11.01018181818182) [exact thing as we did here except now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=13.192000000000007) [we're going to tackle configuring our switches instead.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m2&clip=4&mode=live&start=15.373818181818194)

## [Building the ICND1 Lab Network: Layer 3 Switch and Switches](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=0) [In this module, we're going to build the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=3) [rest of our ICND1 lab network. And we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=7) [going to focus here on our layer 3 switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=10.5) [and the layer 2 switches. Our goals this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=12.75) [module are going to be the same as the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=15.071428571428573) [last module. We're going to build that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=18.285714285714292) [ICND1 lab network now focusing on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=21.105263157894743) [switches, and we're going to use Notepad](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=24.052631578947384) [to help us build those configurations for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=27) [those switches. Let's just dive into it and start configuring our switches.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=0&mode=live&start=34)

### [Demo: Configuring the 3560 Layer 3 Switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live)

[What I'd like to do next is configure that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=1.113) [3560 switch. In our case, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=4.385727272727273) [configure that switch as a router in our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=6.713) [network. And the way I plan on doing that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=8.84633333333333) [is I'm going to take F0/2 and F0/3, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=11.547782608695655) [we're going to issue the no switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=14.286913043478268) [command so that those are layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=16.413) [interfaces and will put an IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=18.513000000000005) [right on the interface itself. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=20.61300000000001) [for F0/1, we'll configure that as a trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=22.779666666666664) [link with VLANs 10 and 15 on it. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=25.44633333333332) [we'll also configure layer 3 interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=28.68442857142857) [for both VLANs 10 and 15. The loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=30.398714285714277) [interface that'll apply to our 3560 there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=33.25585714285714) [is 10. 0. 99. 4. Now let's take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=37.255857142857124) [the configuration tasks that we need to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=41.712999999999994) [here. So what I want to do is I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=43.84633333333332) [use Notepad again to edit the basic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=47.27089473684212) [configuration file. We're going to grab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=49.48142105263161) [the basic configuration file from router 1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=51.44633333333334) [and edit it and take out all the stuff](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=53.77966666666669) [that we don't use on switches so we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=56.779666666666714) [apply it to the switch. We'll then paste](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=59.29481818181819) [that config on the 3560 and check for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=61.47663636363637) [errors. We'll have to configure our VLANs.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=63.93652941176471) [Since I haven't preconfigured VLANs in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=66.81888235294115) [routers, and VLANs don't usually show up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=69.70123529411758) [in my running config file anyway, we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=72.32352631578945) [have to manually configure our VLANs for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=74.90247368421048) [VLANs 10 and 15. We'll secure our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=77.48142105263157) [switchports here. Now since there are no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=80.0603684210526) [PCs expected to connect to this layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=82.63931578947363) [switch, I'm actually going to secure all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=85.44633333333331) [the switchports by simply shutting them](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=87.77966666666661) [down. We're going to configure that trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=89.77966666666659) [link on interface FastEthernet0/1, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=91.988) [then we'll configure the two layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=93.5505) [interfaces for VLANs 10 and 15. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=95.89077777777777) [configure ports F0/2 and /3 as 'no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=98.61299999999997) [switchport. ' We're going to enable our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=101.33522222222217) [OSPF routing. And, last, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=103.69194736842103) [copy our configuration to Notepad so that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=105.90247368421046) [we have a copy that we can use later on.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=108.113) [Let's just move right on to our device and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=111.9225238095238) [start configuration. Well what I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=115.35109523809521) [to do is open up my folder where I've been](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=117.15647826086956) [storing all of my configs on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=119.76517391304347) [workstation here. And I'm going to open up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=121.5912608695652) [the router 1 config. And we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=124.21299999999997) [save that as the file 3560. I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=127.01299999999992) [rename that file before I start editing it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=130.1564782608696) [just in case I accidentally save that file](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=132.93908695652183) [as the R1 configuration. I don't want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=135.72169565217408) [lose the information I have already saved](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=138.34376923076928) [for R1. I want to create a new file for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=140.49761538461553) [the 3560. We're going to change our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=142.99535294117658) [hostname here. Sometimes our switches](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=144.64241176470608) [don't like just plain numbers in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=146.37615789473688) [hostname, so I'm going to set it to s3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=149.3235263157896) [just putting the s there for switch just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=153.113) [to give it a letter in addition to those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=154.63680952380963) [numbers so that the hostname command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=156.35109523809547) [doesn't error out. Our enable secret there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=157.74457894736844) [is going to be the same as it was before.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=159.95510526315798) [Domain name, username, all the same. Our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=163.113) [crypto key generate command is the same.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=165.11299999999994) [Ip ssh version 2 is the same. Our loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=167.113) [interface we're going to set to 10. 0. 99.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=170.4287894736843) [4. Now our Ethernet interfaces, I'm just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=173.7445789473686) [going to delete those, as well as the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=175.988) [serial interface. We're going to configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=178.488) [those specifically on our router. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=180.66855555555554) [look at my router ospf 10 configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=183.39077777777774) [here, we need to advertise all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=186.113) [directly connected networks to our 3560.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=188.9701428571429) [So far we know that network 10. 0. 0. 8/30](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=191.113) [is going to be connected, 10. 0. 0. 0 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=195.1870740740742) [not, but 10. 0. 0. 12/30 is. Additionally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=199.26114814814838) [we're going to set our loopback interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=202.4255) [to get advertised as 10. 0. 99. 4. We do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=204.613) [have two other networks that we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=207.95510526315792) [advertise here--10. 0. 10. 0 with a 24-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=211.3235263157896) [mask. That's in area 0. And then network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=214.69194736842127) [10. 0. 15. 0. Those are for the layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=218.1564782608696) [interfaces for VLANs 10 and 20. If we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=222.50430434782615) [continue down our configuration, we don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=225.68442857142855) [need line aux 0 because our switch does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=227.39871428571422) [not have an aux port. We do have the line](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=229.68442857142844) [con 0, so we'll just leave the config as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=232.58358823529406) [it is there. This should do it for my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=235.23064705882337) [configuration for the 3560, at least for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=238.363) [the base configuration. I'm going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=240.988) [Ctrl+A to select everything, Ctrl+C to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=243.44633333333337) [copy it to my clipboard. And then I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=245.44633333333343) [going to open up PuTTY. I already have the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=248.0260434782609) [rollover cable plugged in to the console](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=250.7651739130436) [port of my switch. So let's go in there. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=252.89560869565238) [do have this already erased, so we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=255.41734782608688) [going to say, No, we don't want to enter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=256.9390869565216) [that initial configuration dialog. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=258.8956086956519) [we issue the show startup-config command,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=261.1129999999999) [it's going to say startup-config is not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=263.51299999999975) [present. What that's indicating is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=265.9953529411765) [our startup-config file is not on this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=267.76005882352956) [device, meaning the switch is blank. So,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=269.81888235294144) [we're good to go with our initial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=272.68442857142867) [configuration. We'll move into config t.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=275.6844285714288) [And since my configuration is already in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=278.2558571428572) [the clipboard, all I have to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=281.25585714285734) [right-click. That will paste my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=284.6844285714289) [configuration on there. And it looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=286.06538095238096) [I just got a whole bunch of errors with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=287.73204761904765) [OSPF. But that is okay. We'll go back and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=289.8749047619048) [take a look at that. So let's scroll back](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=292.67299999999994) [up and see if there were any errors. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=295.5529999999999) [looks like hostname, everything worked](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=298.3482941176471) [okay with that. Enable secret--it did give](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=299.52476470588243) [me a message here saying that it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=301.17182352941194) [replacing the one command with another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=303.31299999999993) [command. They're the same commands with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=305.7129999999998) [the same information in them. With the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=307.4287894736841) [username, we've got the same thing here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=309.27089473684185) [It says replacing the username command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=311.113) [with this other username command. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=313.84027272727263) [that's also okay. It looks like our crypto](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=316.49761538461536) [key got generated correctly. We didn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=319.5745384615382) [really get an error message here until we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=321.68442857142855) [got to router OSPF. And here it says IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=323.9701428571428) [routing is not enabled. Now we have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=327.1129999999999) [remember that on these layer 3 switches,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=330.3129999999997) [they don't act as a layer 3 switch until](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=333.113) [we tell them too, and we have to actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=335.15845454545473) [issue that IP routing command in order to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=337.20390909090946) [do that. So we're getting a bunch of error](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=339.44633333333326) [messages here. We'll double-check to see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=342.4463333333331) [if any ospf config got added to the switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=344.5130000000001) [before we make any changes to it. Keep](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=347.6630000000003) [going down. It looks like the rest of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=350.4255) [config has been correctly set up. It does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=353.238) [say here that SSH version 1. 99 has been](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=355.7493636363636) [enabled. Let's just make sure that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=358.61299999999994) [actually get ip ssh version 2 on this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=360.84027272727263) [device. I believe that command was entered](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=364.113) [in. If we scroll back up here, right here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=367.613) [it is. So it did get entered in to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=369.79721052631584) [config. However, we're just going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=371.90247368421063) [double-check and verify that it actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=373.77966666666657) [got added here by entering it again. No](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=375.77966666666646) [harm is going to be caused by entering the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=378.463) [command twice. Since we need to get OSPF](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=381.6130000000002) [running here, and we want this to serve as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=384.4130000000004) [a layer 3 switch, we're going to have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=387.11299999999994) [enable that IP routing command. If I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=389.68442857142844) [show run now, and I begin at ospf or at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=392.873) [router ospf 10, what we'll find out here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=397.27299999999997) [is if that configuration stuck around.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=400.79299999999995) [Since no results came up, it means that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=403.8005) [router ospf 10, that command, is not in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=408.3005) [the configuration anywhere, which means](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=411.75585714285717) [that our OSPF is not configured. Let's go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=412.8272857142858) [back to our text file. All I have to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=414.513) [here now is select the text for the OSPF](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=416.7600588235295) [config. I'll copy that to my clipboard and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=418.87770588235315) [go back and paste it again. Now it looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=422.413) [like it accepted that command without any](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=425.1130000000001) [issues at all. And we have most of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=427.2130000000002) [base configuration done now for our layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=429.7129999999999) [3 switch. The next step was to set up our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=431.57966666666647) [VLANs. Now we only have two VLANs that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=434.199956521739) [need on here, and those are connected to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=436.5477826086954) [our trunk link on F0/1. So we need VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=439.113) [10, and this was the voice VLAN. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=443.613) [we need VLAN 20, and that was the data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=447.9701428571429) [VLAN. Nope, I did not need VLAN 20, did I?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=451.8272857142859) [So we'll say no vlan 20. It's easy enough](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=456.113) [to fix. And then we'll say vlan 15. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=458.76005882352956) [was our data VLAN. So our data VLAN here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=461.54157142857144) [we'll say name Data. And now if I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=465.39871428571445) [show vlan, we should just see VLANs 10 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=469.9551052631578) [15 that we've configured. There they are.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=474.2182631578945) [Now that we have our VLANs configured,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=477.87770588235287) [let's go back and secure our switchports.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=481.99535294117624) [Now I want to see what switchports are on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=486.113) [this switch. So I can find that out by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=488.56754545454527) [just issuing the command do show ip int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=491.02209090909054) [bri, and that will show me all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=493.33039130434776) [switchports on here in addition to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=496.0695217391302) [layer 3 interfaces. Really what I'm after](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=498.1999565217388) [here is I want to use the range command to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=500.504304347826) [shut down all of my ports on the switch,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=503.982565217391) [and then I'll just turn on the ones that I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=507.113) [need individually. So I want to do int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=510.863) [range, and I want to do F0/1 through 24,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=513.863) [and then I'll do space, space G0/1 space -](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=518.0415714285714) [space 2. And now that will give me all of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=523.8272857142854) [the physical interfaces on this device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=527.3987142857147) [And I'm going to just issue the command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=529.113) [shut, and that should shut down all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=531.779666666667) [interfaces. And we're going to get a bunch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=534.7796666666674) [of messages here saying that 24 interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=537.2129999999997) [or 26 interfaces changed state to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=539.3129999999994) [administratively down. It's exactly what I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=541.113) [wanted to happen. Next, let's go and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=543.6393157894738) [configure the trunk link on F0/1. So we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=546.5866842105265) [switch to int F0/1. Right now if I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=549.8402727272728) [show run int f0/1, it should just be the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=553.4766363636365) [interface, and it's shut down. This is our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=556.7493636363639) [trunk link. So what we need to do here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=559.3402727272731) [we need to specify our encapsulation and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=562.5220909090918) [indicate that it is a trunk port. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=565.113) [say switchport trunk encapsulation dot1q.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=569.613) [And then we'll say switchport mode trunk.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=572.113) [Then we'll also say switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=574.8053076923076) [nonegotiate. When we do that, that turns](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=576.7283846153844) [off dtp. So now we won't be trying to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=579.1130000000003) [automatically set up a trunk link. I want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=582.1130000000006) [to manually add the VLANs that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=584.6844285714287) [required for that trunk link. So we say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=586.6844285714291) [switchport trunk allowed vlan 10, 15. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=589.4463333333334) [that will allow only VLANs 10 and 15. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=592.5574444444446) [then I'm going to issue the no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=596.470142857143) [command to enable that port. So if I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=599.3272857142861) [show int trunk now, I should see FA0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=603.0177619047621) [with VLANs 10 and 15 configured on them.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=606.0653809523814) [The next step that we had in our task list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=609.113) [was to create our layer 3 interfaces or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=611.9701428571434) [our VLAN interfaces for the switch. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=614.2558571428581) [start with interface VLAN 10. Here we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=616.5043043478261) [going to put an IP address on of 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=618.9390869565216) [10. 1 with our 24-bit mask. We'll do a no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=622.4173478260866) [shutdown there. And then we'll do int vlan](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=625.9365294117649) [15. And here we'll do ip address 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=628.7600588235298) [15. 1 with our 24-bit mask again and no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=632.6685555555557) [shutdown. Our layer 3 interfaces have now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=636.6685555555558) [been created. The next step is going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=639.5129999999999) [to configure F0/2 and F0/3 as layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=643.1129999999997) [ports. So we're going to go to interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=646.3629999999999) [FastEthernet0/2. And that's the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=649.696333333333) [that's connecting to R1. Here I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=651.5247647058825) [issue the command no switchport. And what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=654.3482941176474) [that'll do is it'll convert my switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=656.713) [from a layer 2 interface where I can put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=658.8129999999996) [VLANs and port security to a layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=661.5129999999992) [interface where I can put an IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=664.3235263157894) [and configure layer 3 stuff. So no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=667.2708947368419) [switchport means that I can now enter the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=670.0296666666668) [command ip address 10. 0. 0. 10 in this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=673.6963333333338) [case with the 30-bit mask. We'll say no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=677.8213333333341) [shutdown here because right now interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=681.5130000000001) [FastEthernet0/2 was in a shutdown state.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=684.3130000000003) [We'll turn that state to no shutdown,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=687.113) [which should bring the interface up. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=689.2668461538459) [might even see an OSPF event here at some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=691.501888888889) [point assuming that everything is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=695.0018888888892) [configured correctly between router 1 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=696.9463333333338) [our layer 3 switch here. We're not going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=698.5866842105263) [to worry too much about that right now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=699.849842105263) [Let's go into interface FastEthernet0/3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=701.113) [and get the configuration on there. Here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=703.8402727272726) [we'll say no switchport. Actually, let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=707.4463333333334) [put the switchport back on there quickly,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=709.4463333333337) [and let's see what happens when I issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=711.7796666666673) [the command ip address 10. 0. 0. 13 with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=715.3129999999999) [mask of 255. 255. 255. 252. We get an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=720.8129999999994) [error message saying, I don't know that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=724.863) [command. Hey, remember that message I said](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=726.613) [we were going to get about OSPF? There it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=728.363) [is. That means that something is probably](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=730.713) [configured correctly. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=732.5796666666665) [figure that out later actually in the next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=733.9024736842107) [module when we do some testing with this.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=736.0077368421057) [For the time being, let's reissue the no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=738.113) [switchport on F0/3. We're going to do the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=741.4814210526317) [no shutdown command. And then I'll add the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=744.8498421052634) [IP address of 10. 0. 0. 13 with our 30-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=748.9255) [mask. That adds in now all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=754.5505) [configuration for all of the interfaces on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=757.3005) [our switch. All the interfaces except](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=759.488) [F0/1, /2, and /3 are currently in a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=761.5415714285716) [shutdown state. I can verify that by doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=764.3987142857147) [the show ip int bri command, and we'll see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=767.3987142857145) [that all the interfaces except for my VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=770.8272857142862) [interfaces, the two that I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=773.955105263158) [configured, and my three interfaces on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=776.4814210526317) [switch are currently in the up state.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=779.4287894736844) [Everything else is administratively down.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=781.863) [It looks like we might have something else](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=783.113) [configured right here. We just built a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=785.113) [neighbor relationship apparently with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=788.8822307692309) [router 3. That's a very good sign. We can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=791.0360769230771) [double-check that. Let's see if we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=794.1718235294115) [ping router 1. So we'll try pinging 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=796.230647058823) [0. 9. That's the IP address on router 1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=798.3761578947369) [and we get success. That's outstanding!](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=800.2708947368423) [We'll do pink 10. 0. 0. 14. That's the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=802.113) [address on router 3. We also can ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=807.113) [that. So that's a very good sign for our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=810.2558571428574) [router. Let's save this configuration,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=812.8272857142864) [copy run start, and then what I'll do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=814.7972105263159) [I'll issue the show run command. And we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=818.5866842105265) [space through the show run command. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=821.713) [I'm after here is I want to take this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=823.8129999999996) [configuration that I have from my 3560,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=826.5129999999992) [and I want to save it in that config file](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=828.8630000000002) [I created initially for it. So there's my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=832.3630000000004) [config file. If I just have it selected in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=834.9953529411764) [PuTTY, that means it's copied. I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=837.6424117647055) [to do Ctrl+A here, select all the text,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=839.5675454545456) [and then I'm just going to do Ctrl+V and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=841.3857272727275) [paste right over it so that I have the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=843.4311818181823) [exact configuration that's currently on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=846.8822307692308) [3560. We're going to save this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=849.6514615384615) [configuration, and we can move on to our next device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=1&mode=live&start=855.113)

### [Demo: Configuring 2960-1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live)

[Let's continue on with our configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=0) [and figure out what we need to do with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=2.7398999999999996) [this layer 2 switch 2960-1. Right now we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=6.849749999999998) [have that switch set up so that there's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=9.654739130434784) [trunk link coming in from our layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=11.219956521739139) [switch of VLANs 10 and 15. Our voice VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=12.611260869565232) [here is VLAN 10. And our data VLAN is VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=15.250647058823532) [15. We're going to take a look at that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=18.780058823529405) [port F0/2 in a little bit. For the time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=21.67845454545453) [being on our 2960 here, we do have a bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=24.54209090909088) [of a problem. On all the other devices,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=27.21995652173912) [I've set up a loopback interface so that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=28.959086956521716) [we can access the device remotely via SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=30.69821739130431) [and make configuration changes. However,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=35.33300000000001) [because our layer 2 switch is a layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=38.383) [switch, we're not really going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=40.633) [routing on there. What we need to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=42.383) [ideally is create another VLAN so that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=45.132999999999996) [can manage and control that switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=48.332999999999984) [remotely. So what I'd like to do here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=50.732999999999976) [actually add a management VLAN to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=54.133) [2960. The management VLAN that I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=56.758) [to add here is 10. 0. 98. 0. I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=59.31481818181817) [make these switches' IP address 10. 0. 98.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=63.314818181818126) [5, and then on my layer 3 switch, I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=66.56157142857144) [going to create another VLAN interface for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=70.84728571428577) [VLAN 98, and I'm going to assign an IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=74.18061904761915) [address there, 10. 0. 98. 1. I did assign](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=77.26343478260867) [a /25 mask here meaning that we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=80.00256521739125) [to have only 126 available hosts on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=82.50142105263157) [network. For this it's just fine because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=85.44878947368417) [it's just this one single switch at this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=88.0277368421052) [time. Maybe later on, we'll add some more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=90.44878947368417) [switches should our design require it. For](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=92.55405263157886) [the time being, we're just going to keep](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=94.40572727272726) [that set as it is. We're going to add that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=96.58754545454539) [interface VLAN 98 to our 2960. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=99.31481818181805) [to add VLAN 98 to our trunk link. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=101.87213043478258) [going to have to go down to our 3560 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=105.00256521739122) [create that VLAN 98 and add it to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=108.35522222222222) [trunk and create that VLAN interface as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=110.35522222222228) [well. So let's take a look at our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=111.91077777777788) [configuration tasks here. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=114.34352631578943) [use Notepad to edit that base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=116.23826315789466) [configuration from our 3560 switch. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=118.133) [then we're going to paste it on our 2960.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=120.13299999999997) [We're going to configure VLANs, the 10,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=123.133) [15, and 98 VLANs. We're going to set up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=125.67845454545451) [our layer 3 interface VLAN 98. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=128.9511818181818) [to configure interface FastEthernet0/2 as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=132.133) [a voice/data port. We're going to set our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=134.633) [default gateway on our switch so that when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=137.5615714285714) [we're trying to access the IP address on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=139.84728571428562) [VLAN 98, the switch knows how to get back](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=142.133) [to the router. We're also going to have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=144.75799999999992) [do some work on the 3560. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=147.38299999999984) [create VLAN 98, create that layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=150.13300000000004) [interface for it, and then add it to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=152.46633333333344) [trunk link. We're also going to need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=155.46633333333352) [advertise 10. 0. 98. 0/25 in OSPF so all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=158.2199565217392) [the devices on our network are aware of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=161.35039130434797) [that network and can reach it should they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=164.133) [need to SSH to it. Let's move over to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=166.41871428571423) [workstation and start this configuration.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=169.275857142857) [I've got my rollover cable plugged into](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=173.133) [the 2960-1 switch. So let's open up PuTTY](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=177.1856315789473) [and start our configuration. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=181.81721052631562) [to say No here, we do not want to enter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=184.633) [the initial configuration dialog. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=187.133) [going to move into privilege mode and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=188.43300000000002) [config mode. Let's now go open up our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=190.5330000000001) [config file from our 3560 switch. So I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=192.9330000000002) [save that on My Desktop in this ICND1 lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=195.99966666666668) [config folder. We're going to open that up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=200.1996666666667) [and make that full screen. The hostname](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=203.13300000000007) [here we're going to change that to 2960-1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=205.46633333333347) [And we're going to get rid of some of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=208.133) [these commands that we did not enter and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=209.9329999999999) [we don't need. Since we're not doing IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=211.53299999999982) [routing, and the 2960s can't even do IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=214.17845454545454) [routing, we'll get rid of that command as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=217.4511818181818) [well. These exclamation points in here are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=220.72390909090905) [nothing more than spaces in the config. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=223.44069230769233) [you paste those into the switch, all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=226.43300000000002) [that's going to do is it's going to hit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=228.5330000000001) [the Enter key, and it's going to continue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=231.2330000000002) [pasting it. We're going to keep going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=233.6714615384616) [here. We're going to get rid of this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=235.82530769230786) [portion as well. Remember we have to add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=238.3602727272727) [our crypto key generate command in here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=240.9057272727272) [And then the key of 1024. SSH version 2 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=243.133) [great there. The loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=246.46633333333344) [interface--remember, we're not going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=247.7996666666668) [a loopback interface on our 2960. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=249.86027272727276) [going to set up VLAN 98 and interface VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=252.40572727272738) [98 to do that. The rest of this, I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=255.67845454545474) [to actually just get rid of all the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=258.5615714285714) [switchport config, because we'll go do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=260.46633333333335) [that actually on the device itself, as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=261.8949047619048) [well as the VLAN interfaces OSPF is not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=264.46633333333347) [going to be enabled. We'll just go to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=267.5774444444448) [lines then, line con 0 and line vty 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=270.6955) [through 4. That should be all we need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=273.508) [here. That's effectively our base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=276.13299999999987) [configuration for our switch. Let's copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=277.79966666666644) [that. And here I made a mistake that I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=279.7645789473684) [told you you should always watch out for.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=282.6066842105264) [I'm going to save my configuration as my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=285.133) [2960 config 2960-1. The risk there was](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=288.3329999999998) [that if I accidentally saved it, I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=291.13299999999964) [have overwritten my 3560 config. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=294.1329999999999) [what I didn't want to do. So I fortunately](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=296.1329999999998) [saved myself here. I was able to save it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=299.3329999999999) [as the 2960-1 config file before I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=302.9329999999997) [accidentally overwrote my 3560 config](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=305.73299999999955) [file. So we can exit out of here. We'll go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=307.46633333333324) [to our config mode now and just paste the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=310.7996666666666) [configuration. We're going to keep an eye](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=313.79966666666644) [out for any errors that pop up. This time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=315.2239090909091) [it looks like there are no errors as we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=316.8602727272728) [pasted that, so we're in good shape. Next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=318.95652941176473) [step here was to configure our VLANs. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=322.25064705882374) [we need three VLANs on this switch. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=325.3961578947368) [need VLAN 10, and VLAN 10 is our voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=327.5014210526314) [VLAN. So I'm going to name that Voice. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=329.86984210526276) [then VLAN 15, that's our data VLAN, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=332.93300000000016) [I'll name that Data. And VLAN 98, we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=335.73300000000035) [name that management. Excellent! Next step](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=339.4859411764707) [here is we're going to configure interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=342.30947058823557) [VLAN 98 so that we have an IP address that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=345.5218888888889) [we can SSH to on this switch. So say int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=349.41077777777804) [vlan 98 and ip address here is 10. 0. 98.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=354.17845454545454) [5 with a 255. 255. 255. 128 subnet mask.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=360.9966363636364) [It's a /25 subnet mask. Now you might be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=367.133) [asking yourself why did I pick a 25-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=369.383) [subnet mask there? Because I did. There's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=371.383) [actually no reason why I picked the 25-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=373.5875454545455) [there over a 24-bit or a 26-bit for that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=376.49663636363647) [matter. It's just the one that I chose.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=379.76936363636383) [Does that mean that you have to use a /25](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=382.58300000000014) [on management networks? Absolutely not. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=386.08300000000037) [just chose a /25 because I did. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=388.0705) [really the end of it. Let's do no shut](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=390.5705) [here. And we'll move on now to our next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=393.5875454545455) [step. We're going to need to configure the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=396.86027272727284) [trunk link on F0/1. So we'll go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=399.76936363636383) [interface FastEthernet0/1. We'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=404.0705) [switchport mode trunk and switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=406.3205) [encapsulation, which this switch doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=409.133) [have that command, which means that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=411.633) [automatically in 802. 1 encapsulation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=415.133) [mode. Next, what we can do here is we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=417.4455) [say switchport trunk allowed vlan. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=420.5705) [then we're going to put in VLANs 10, 15,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=422.52430434782605) [and 98. And it looks like it doesn't like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=426.04604347826063) [the spaces there in my command, so we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=429.5677826086952) [get rid of the spaces. There we go. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=432.39615789473686) [going to say switchport nonegotiate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=435.23826315789483) [because we don't want an automatic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=436.81721052631593) [negotiation on that switchport. If we do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=439.2758571428572) [show run now of F0/1, we should see now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=442.2758571428573) [that our switchport is set to trunk mode,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=446.133) [and we're allowing VLANs 10, 15, and 98 on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=448.65931578947374) [that trunk. If I do show interface trunk,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=451.5014210526317) [we can also verify that port F0/1 has](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=454.48082608695637) [those three VLANs allowed on the trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=457.6112608695649) [link now. Next, let's set up interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=460.35039130434734) [FastEthernet0/2. Let's get the right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=463.44069230769225) [interface in there. There we go. So on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=465.7483846153845) [interface FastEthernet0/2, we have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=469.4859411764707) [voice-over IP phone connected, and that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=471.8388823529414) [connected to VLAN 10. And then we have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=474.6624117647063) [PC connected to the voice-over IP phone.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=477.2663333333332) [And that PC is on VLAN 15. Now if you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=479.133) [not certain how this works, most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=482.94252380952406) [voice-over IP phones have a small switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=485.2282380952385) [on the back of the phone. And what that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=487.633) [allows us to do is it allows us to build a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=489.883) [trunk link from the switch to the phone](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=492.633) [and then from the phone to the PC that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=495.5875454545456) [just going to be an access port. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=499.269363636364) [there's some magic that goes on with Cisco](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=502.4663333333333) [phones and CDP that allows a lot of this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=505.1329999999998) [configuration to be automatically created,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=508.13299999999964) [but we do need to set some specific](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=509.7996666666666) [configuration on that device first. So the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=512.4663333333332) [way we do that is we say switchport mode](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=514.8330000000001) [access. I'm going to say switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=517.9830000000003) [nonegotiate to turn off that dynamic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=520.0830000000004) [trunking protocol. And now I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=522.0803684210525) [say switchport access vlan, and I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=524.2908947368417) [to put now the data VLAN. So switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=526.5014210526308) [access vlan 15, that is our data VLAN. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=530.133) [then we're going to say switchport voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=534.5139523809524) [vlan 10. That's going to indicate that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=537.1806190476193) [voice VLAN is VLAN 10. If we do show run](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=540.2282380952386) [int f0/2, let's take a look at what we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=543.3094705882354) [configured so far. We see that our data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=545.427117647059) [VLAN here on our access port is 15, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=547.7996666666669) [then this voice VLAN is VLAN 10. Now we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=550.7996666666672) [didn't actually configure trunking here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=553.7044285714287) [although we kind of configured trunking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=555.1330000000004) [here. This is a very oddball case on a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=556.8472857142864) [switch where our switchport is configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=560.2441111111114) [as an access port, which means that VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=562.5774444444448) [15 traffic will go across that link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=565.7996666666666) [untagged. But whenever we set up that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=568.716333333333) [command switchport voice vlan 10, when we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=571.4187142857145) [do that what will happen is VLAN 10](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=574.0853809523813) [traffic will be tagged in an 802. 1 queue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=577.133) [frame as it moves from the switch to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=580.9224736842107) [phone. In this way, we can separate the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=584.7119473684213) [traffic between the PC on VLAN 15 and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=587.9329999999999) [phone on VLAN 10. Whenever I turn on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=591.5329999999997) [voice VLAN on these 2960s, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=595.008) [automatically adds this spanning-tree](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=597.258) [portfast command allowing that port to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=598.758) [come online immediately rather than having](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=601.1918235294116) [to wait 30 seconds for the spanning-tree](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=603.6624117647056) [process to kick in and make sure that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=606.4663333333334) [there's no loops on the network. When](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=609.1330000000004) [we're configuring a port for a voice VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=611.5139523809524) [like this, we're actually setting up a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=614.5615714285717) [trunk port but it's a weird kind of trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=617.2282380952386) [port because our access VLAN 15 here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=620.2441111111114) [untagged traffic, and our switchport voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=622.466333333334) [VLAN 10, VLAN 10 traffic is tagged. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=624.133) [this is going to allow our voice-over IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=627.0803684210525) [phone to operate. The reason I bring this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=630.027736842105) [up is, one, it's part of the CCNA](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=632.6329999999998) [curriculum, and, two, in most modern](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=635.0329999999994) [networks, you're going to see a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=636.8329999999992) [configuration on a switchport exactly like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=638.7996666666669) [this. Now when you do use voice-over IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=640.7996666666671) [phones, typically there're a lot more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=643.711947368421) [commands on here related to quality of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=645.9224736842103) [service. Right now quality of service is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=648.5830000000001) [far beyond the scope of ICND1 material, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=651.7330000000004) [we're going to leave it at this. Just know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=655.3330000000008) [that when we set this up, our voice VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=658.2693636363638) [is tagged, and the other traffic is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=660.3148181818185) [untagged. Let's move on to the rest of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=661.9057272727277) [configuration tasks. We need to set our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=664.9565294117649) [default gateway. That was one of the last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=667.4271176470592) [steps we needed to do here. Additionally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=669.9329999999998) [we should probably secure the rest of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=672.0329999999994) [switchports. So to secure those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=674.3234761904762) [switchports, what I would like to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=675.2758571428569) [I'm going to create an unused VLAN. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=676.7996666666661) [we'll say a VLAN 600 is our unused VLAN.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=678.8949047619049) [And what I'll do then I'll say interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=685.7520476190482) [range F0/3 through F0/24 and then G0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=691.8472857142867) [through 2. Oops! Made a mistake there. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=696.133) [don't put the F0 after that. There we go.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=700.133) [And now what I can do is I can say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=704.2996666666668) [switchport mode access, switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=708.1885555555559) [nonegotiate, switchport access vlan 600,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=709.7441111111116) [and we can even go a step further and just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=711.7693636363636) [do a shutdown on all of these interfaces.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=715.8602727272723) [We'll let our logging kick in here, then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=719.133) [show us that all the switchports on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=721.6593157894733) [switch are now administratively down. I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=724.1856315789466) [not going to enable port security on this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=726.3829999999999) [switch. If we do a show run, we can see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=729.716333333333) [that our trunk link is configured and our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=733.1330000000004) [interface FastEthernet0/2 for voice. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=735.7996666666673) [then all the rest of our interfaces here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=737.4663333333334) [are in a shutdown state and on VLAN 600.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=740.1330000000004) [That way if we do accidentally turn on one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=743.133) [of these switchports with the no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=745.7800588235291) [command, our devices are not automatically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=747.8388823529406) [connected to some VLAN that we don't want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=749.5615714285717) [used. Or it's also not connected to VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=751.8472857142864) [1, which is right now our native VLAN, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=754.4663333333336) [we can't actually get traffic on to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=757.466333333334) [native VLAN, which is great. The last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=759.7851739130436) [thing we want to do here is we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=761.3069130434787) [add a default gateway, and the reason we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=763.4808260869574) [need a default gateway here is that VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=765.654739130435) [98 needs a way to find out how to get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=768.089521739131) [traffic from 10. 0. 98. 5 to some other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=771.133) [network. And in order to do that, we need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=774.7329999999998) [a router. Our router is the VLAN 98](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=778.3329999999996) [interface on the 3560. So let's add that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=781.383) [in here. We say ip default-gateway. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=784.383) [then we put in the address. So this is 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=787.0774444444446) [0. 98. 1. And now our switch will have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=790.9663333333338) [method to get traffic on and off of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=794.6784545454547) [management VLAN by going through the 3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=797.951181818182) [switch. Let's save this configuration. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=801.133) [now let's go to our 3560 switch and configure the VLAN 98 there.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=2&mode=live&start=807.133)

### [Demo: Adding VLAN 98 to the 3560 Layer 3 Switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live)

[So I'm going to just move my rollover](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=0.622) [cable to the 3560. And we're going to hit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=3.733111111111111) [Enter. I'm not going to close PuTTY or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=7.233111111111114) [anything. I'll just hit Enter. It's now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=9.372) [going to ask me to log in to my 3560. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=11.122) [here we'll just do the configuration tasks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=13.955333333333334) [that we need. We need to create VLAN 98,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=16.28866666666667) [and this was named management. And then we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=19.28866666666666) [need to create interface VLAN 98, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=22.25836363636364) [that's going to have an IP address 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=25.12200000000001) [98. 1 with a 25-bit mask, which is 255.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=28.8038181818182) [255. 255. 128. We'll issue no shut there.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=33.355333333333334) [The next step we have to do here is we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=37.622) [have to add VLAN 98 to our trunk link. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=40.253578947368425) [I do show int trunk, that'll show us our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=43.00661538461539) [trunk link configurations. Right now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=46.46815384615387) [interface FastEthernet0/1 is our trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=48.39977777777777) [link. So let's change to that interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=50.3442222222222) [and add our VLAN to that trunk link.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=53.0664444444444) [Remember, we want to add the VLAN to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=55.38390476190476) [trunk link, and in order to do that, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=57.09819047619047) [have to say switchport trunk allowed vlan](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=59.148315789473685) [add 98. If I just said switchport trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=62.83252631578948) [allowed vlan 98, it's only going to allow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=67.04305263157896) [VLAN 98, and it's going to get rid of 10](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=70.38670588235297) [and 15. Here, though, if I do show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=73.91611764705891) [interface trunk again, now we'll see that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=76.53109090909088) [10, 15, and 98 are on that trunk link. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=78.75836363636357) [next thing I'd like to do is advertise](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=81.997) [that network in OSPF. So what we have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=84.997) [do here is we go into router ospf 10, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=88.372) [we say network 10. 0. 98. 0 with a 0. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=92.622) [0. 127 mask. 127 is the wildcard mask for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=98.122) [a 25-bit subnet mask. Now our network has](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=102.622) [been advertised in OSPF. We can do a quick](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=106.622) [test here and see if we can ping 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=110.28866666666664) [98. 5. And hopefully we can do that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=113.62199999999993) [successfully. There we go. We lost the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=116.28866666666656) [first two pings. That's happening because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=118.51673684210523) [the ARP process has to kick in. On the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=120.41147368421046) [switches, sometimes that ARP process is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=123.06644444444446) [especially slow. So we lost our first few](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=124.39977777777783) [pings there. Now we can ping our 2960-1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=126.17755555555566) [switch without a problem. This wraps up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=129.32199999999997) [all of our configuration tasks for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=132.4719999999999) [2960-1 device, as well as the 3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=135.622) [additional configuration to get that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=139.122) [management interface working on the 2960.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=141.622) [Let's move on to our next configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=144.622) [task. Before I do that, I'm going to copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=147.77199999999993) [run start my configuration. And actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=151.82199999999983) [before we move on to that, what I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=154.23069565217395) [to do is grab the 2960 config and put it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=156.96982608695666) [into another Notepad document. So I just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=160.01330434782633) [move the rollover cable back to the 2960.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=162.54507692307695) [We'll do show run, hit the Spacebar to get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=165.622) [through the whole thing, and then I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=167.872) [going to copy this configuration and paste](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=169.622) [it into a new Notepad document. We'll go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=172.00661538461537) [to Notepad, paste it, make sure we got it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=175.698923076923) [all. It looks excellent. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=180.3278823529412) [File, Save As. I'm going to call this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=184.0337647058824) [2960-1, and we're going to say - actual. So that's the actual config on the device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=3&mode=live&start=190.622)

### [Demo: Configuring 2960-2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live)

[Let's move on to the last device that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=0) [need to configure here. This is the 2960-2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=3.5919999999999996) [switch. Let's look at our drawing. What we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=6.784888888888887) [need to do here is create two VLANs on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=9.411272727272728) [switch--VLAN 20 and VLAN 80. Additionally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=12.593090909090911) [we're going to do the same thing we did on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=14.541142857142857) [our 2960-1 switch. I'm going to add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=18.11257142857143) [interface VLAN 97 to our switch and give](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=20.783999999999995) [it the IP address 10. 0. 97. 6. And what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=23.983999999999984) [that means is we're going to have to add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=27.684) [another interface to router 2. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=29.934) [to have to add another sub-interface to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=31.934) [router 2 to accommodate our VLAN 97. Also,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=34.559) [we're going to add VLAN 97 to our trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=37.583999999999996) [link of our 2960-2 switch. Let's take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=41.18399999999998) [look at the tasks we need to do here to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=43.934) [configure this switch. We're going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=46.434) [Notepad to edit the base configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=48.326857142857136) [file and paste it. I'm just going to go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=50.041142857142844) [grab that same exact config file we used](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=52.923130434782614) [to paste onto 2960-1 to do for our 2960-2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=55.7057391304348) [switch. We're then going to configure our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=58.83617391304351) [VLANs 20, 80, and 97. We'll configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=61.58399999999999) [interface VLAN 97 so we can access the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=64.38399999999999) [switch remotely for configuration changes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=67.53694117647059) [We're going to configure the trunk link on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=69.30164705882356) [F0/1 to carry VLANs 20, 80, and 97. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=72.12517647058831) [then we're going to set the default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=75.75542857142858) [gateway. In this process as well, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=78.7554285714286) [going to secure our switchports just like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=81.39452631578945) [we did on the 2960-1 switch. Last, we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=83.97347368421048) [set that default gateway so we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=86.73955555555554) [configure the device remotely with SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=88.68399999999994) [from a different network than the VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=90.35066666666657) [network. The R3 configuration tasks then,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=93.12844444444443) [we're going to have to create our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=95.46177777777774) [interface VLAN F0/1. 97 and then advertise](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=98.184) [that network in OSPF. Let's just hop to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=102.63854545454548) [it. So I'm going to move to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=106.72246153846154) [workstation. Let's open up our document](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=109.79938461538464) [with the config for 2960-1. And here it is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=112.9965) [right here. We're going to save that now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=118.059) [as 2960-2. And we'll change this hostname](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=123.46971428571425) [2960-2. And I think that's really all I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=128.46971428571422) [need to change here. Everything else is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=130.934) [going to remain exactly the same. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=132.684) [just our simple base config. So we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=134.94590476190476) [select everything here, do Ctrl+C, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=137.6125714285714) [we're going to open up PuTTY. I do have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=139.8982857142857) [the rollover cable plugged into the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=143.18400000000003) [console port of the 2960-2 switch. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=145.18400000000008) [should be a blank switch here. I have it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=147.434) [all erased and ready to go. We'll move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=149.684) [into configuration mode and right-click in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=151.91127272727275) [PuTTY to paste. We're going to keep an eye](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=154.093090909091) [out again for any errors that occur.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=156.94870588235287) [Everything looks good here. So the next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=159.00752941176455) [step that we have is to create our VLAN.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=161.18400000000003) [So say vlan 20, and we'll give this a name](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=164.1840000000001) [of PC since we have a PC connected to it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=167.51733333333354) [vlan 80, this is where we have a server](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=170.40622222222217) [connected. Our web server is connected](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=172.9062222222221) [here. So we'll name this webserver. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=175.00218181818187) [then vlan 98, 97 on this switch, vlan 97.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=177.684) [And the name here is management. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=182.184) [going to create our interface vlan 97. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=185.66226086956522) [here we give it an IP address of 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=189.48834782608697) [97. 6 with that 25-bit mask. We'll do a no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=194.27095652173915) [shutdown there. Next step, let's configure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=199.384) [our trunk link. So we'll go to interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=202.58399999999997) [FastEthernet0/1 here. We're going to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=205.9697142857143) [switchport mode trunk. Since this is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=208.11257142857147) [2960, we do not need to specify the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=210.1070769230769) [encapsulation. It's automatically going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=211.95323076923071) [use 802 dot1q encapsulation. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=214.934) [switchport trunk allowed vlan, and we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=218.3715) [going to put 20, we're going to put 80 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=222.4965) [97 on that link. And we'll say switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=225.22945454545447) [nonegotiate so that we don't automatically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=227.04763636363623) [try to negotiate the trunk link there. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=228.584) [we do show int trunk now, we should see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=231.78400000000005) [that the VLANs we want configured on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=235.3840000000001) [link are actually configured. We're in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=238.58400000000003) [good shape here. Let's configure the two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=240.98400000000007) [interfaces that are connecting to the web](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=243.25066666666672) [server and our PC. We'll start with the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=245.11733333333348) [web server that's on interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=248.184) [FastEthernet0/2. Here we're going to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=250.684) [switchport mode access and switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=253.10707692307693) [access vlan 80. We're going to say switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=255.03015384615387) [nonegotiate. And that should be all we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=257.6125714285714) [need here. If we do show run int f0/02,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=259.61257142857136) [that's an appropriate configuration for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=262.98399999999987) [our web server. If we now go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=264.98399999999975) [FastEthernet0/3, here we're going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=268.2428235294119) [the same thing, switchport mode access,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=270.71341176470617) [switchport access vlan 20, and switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=273.184) [nonegotiate. Now F0/3 is correctly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=277.18400000000014) [configured. What I'd like to do now is for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=280.51733333333357) [the rest of the ports on this switch, if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=282.92313043478254) [we do show ip int bri, we'll see all of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=284.87965217391286) [the ports that are left on the switch for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=287.07288888888894) [the rest of the interfaces, interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=289.072888888889) [FastEthernet0/4 through 24 and G0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=290.81557894736846) [through 2. We're going to do the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=293.97347368421066) [config we did on the other 2960. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=299.0261052631582) [go back to my list of all the configs I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=303.684) [have here. We'll open up the actual config](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=307.434) [for the 2960-1. And I'm going to grab this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=310.3945263157894) [configuration here right from one of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=313.71031578947344) [interfaces on the 2960-1 switch and copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=316.1313684210527) [it. And then I'm going to paste it here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=318.3418947368422) [Now I did not have VLAN 600 created, so it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=321.184) [automatically created VLAN 600 for us. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=326.184) [it applied the rest of the config for us.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=329.434) [The only other thing I want to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=331.684) [change the name of that VLAN so that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=333.934) [know that it is unused. So now we have all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=336.57530434782603) [of our switchports that we're not using in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=340.05356521739105) [an unused VLAN so they're not connected to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=342.83617391304307) [VLAN 1, and we've shut down all those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=345.3715) [interfaces. Let's copy our config. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=347.8715) [that I've copied it, I do remember there's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=350.02610526315783) [one last configuration task we need to do,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=352.9734736842103) [and that is to set the default gateway. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=355.88400000000007) [that command is ip default-gateway 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=359.0340000000003) [97. 1. That default gateway here on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=361.48400000000044) [switch uses the same exact concept of a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=364.07873684210534) [default gateway on the PC, meaning that if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=366.6050526315791) [our IP address on our switch is on the 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=368.96660869565216) [0. 97. 0 network, the default gateway is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=371.5753043478259) [going to have to be on the 10. 0. 97. 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=373.66226086956493) [network. So in this case, 10. 0. 97. 1 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=377.64553846153825) [our default gateway for the VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=381.49169230769184) [interface at 10. 0. 97. 6. We'll do copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=384.184) [run start, save that configuration again.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=388.98400000000026) [And what I need to do now is move over to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=392.184) [router 2 and add those couple components](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=394.8030476190477) [of the configuration. So what I've done is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=396.46971428571436) [I've moved my rollover cable to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=398.3604705882354) [console port of router 2. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=400.0075294117649) [log in here. And now we're going to go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=402.5173333333334) [config mode and interface FastEthernet0/1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=406.96177777777797) [And actually I don't need to do interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=409.184) [FastEthernet0/1. I need interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=413.75542857142847) [FastEthernet0/1. 97. Here we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=416.0411428571427) [say encapsulation dot1q for VLAN 97. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=419.0970434782608) [going to add an IP address then for 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=422.4448695652171) [97. 1 with a mask of 255. 255. 255. 128.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=427.227478260869) [We'll do no shutdown here. And then last,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=431.093090909091) [we're going to go to router ospf 10, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=434.002181818182) [we're going to advertise network 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=437.7554285714286) [97. 0 with the 25-bit mask, which leaves a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=441.4220952380952) [wildcard mask of 0. 0. 0. 127 that, of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=446.1363809523809) [course, is in area 0. Let's do copy run](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=450.18400000000014) [start to save our configuration. I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=454.04114285714314) [to do a quick test to make sure I can ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=456.684) [10. 0. 97. 6. Remember those first couple](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=459.434) [of pings may not go through, but hopefully](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=461.434) [the rest will work. There we go. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=463.6125714285714) [have all of our devices with the base](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=466.1839999999999) [configuration on them now. One of the last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=468.51733333333334) [tasks I'll need to do is to connect my web](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=471.18399999999986) [server to port F0/2 of the 2960-2 switch.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=474.517333333333) [I'll have to connect the PC to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=478.3418947368422) [FastEthernet0/3 port of the 2960-2. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=482.5524210526318) [I'll connect that voice-over IP phone/PC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=485.8506666666667) [to interface FastEthernet0/2 on 2960-1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=489.8506666666668) [Now I'll tell you straight up, I don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=493.184) [have a voice-over IP phone to connect to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=495.0663529411766) [that. We're just going to connect the PC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=496.9487058823532) [at 10. 0. 15. 10. I'm not too worried](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=499.0930909090908) [about that voice-over IP phone on there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=501.54763636363606) [because the configuration is more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=503.61257142857147) [important than actually troubleshooting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=505.7554285714287) [and supporting the phone at least for ICND1 topics for this exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=4&mode=live&start=507.4697142857145)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live)

[Let's wrap up what we've worked on. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=0) [we've done here is we've configured each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=3.0476190476190474) [one of our three Cisco switches. One of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=5.714285714285715) [those was that layer 3 3560 switch, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=8.64181818181818) [the other two were those two layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=11.209090909090904) [switches, those 2960 switches. So we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=13.776363636363627) [built all that and configured them. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=15.586315789473685) [during that process, we did use Notepad to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=17.42842105263158) [help us configure those devices. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=19.53368421052632) [copying and pasting out of Notepad is an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=21.471764705882347) [incredibly valuable tool that I think](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=24.295294117647042) [you're going to continuously use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=26.367692307692305) [throughout your career as a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=27.90615384615384) [engineer. Let's go on to the next section](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=29.752307692307678) [where we start to test and examine our configurations on this network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m3&clip=5&mode=live&start=37.06)

## [Testing and Examining Our Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=0) [In this module, we're going to test and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=2.647058823529412) [examine that network we just configured.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=6.176470588235296) [The goals here are to test and examine our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=8.5) [configuration, and we're going to use ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=11.147058823529418) [commands, traceroute commands. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=13.205882352941188) [to SSH into the devices and issue some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=14.875) [show commands as well. If along the way we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=17.625) [discover any issues in our configuration,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=20.624999999999996) [what we'll do is we will correct those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=22.574999999999992) [issues so that our network functions as we expect it to.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=0&mode=live&start=25.174999999999986)

### [Demo: Testing Connectivity to the Default Gateway](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live)

[Let's first test and examine our network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=1.325) [So here's the network drawing that we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=3.325) [set up. Additionally, I've added the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=5.795588235294116) [devices on the network. I've added 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=7.913235294117643) [20. 10, and I've connected that to F0/3 of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=10.825) [the 2960-2 switch. I've also added our web](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=14.2) [server at 10. 0. 80. 80. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=16.515476190476186) [additionally, I have another device over](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=18.420238095238084) [there at 10. 0. 15. 10 plugged into port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=19.848809523809507) [F0/2 of my 2960-1 switch. If you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=23.640789473684205) [wondering what these devices are, I don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=26.95657894736841) [actually have three separate unique](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=30.148529411764702) [devices here. What I do have are three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=32.20735294117646) [virtual machines running on my iMac right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=35.5014705882353) [now, and those three virtual machines](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=38.324999999999996) [function as my workstations. Those three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=40.72499999999999) [virtual machines are connected to three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=43.15833333333333) [separate network interface cards. I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=45.65833333333332) [some USB NICs that I've connected to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=47.925) [Mac, and those USB NICs function as the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=50.324999999999974) [individual network interface cards for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=52.72499999999995) [each of those three workstations. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=54.15833333333334) [device that we're going to test from is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=55.82500000000001) [the VLAN 20 device down there, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=58.04722222222224) [that 10. 0. 20. 10. What are we looking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=61.24166666666665) [for, and what are we going to do? Well,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=64.325) [let's test our connectivity by pinging all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=66.575) [the devices on our network. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=68.325) [trace route to some devices on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=70.325) [network, find out if the path we're taking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=72.075) [to get from one device to another is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=74.32499999999999) [accurate. We're going to ping the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=76.99166666666662) [internet, find out if we can access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=78.575) [resources on the internet. And then we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=80.325) [going to test SSH to each one of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=82.10760869565217) [devices and make sure that we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=84.45543478260869) [configure each device remotely. Next,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=86.28152173913043) [we're going to examine our routers and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=87.50681818181819) [switches. We're going to take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=88.7795454545455) [the routing table on our routers. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=90.234090909091) [going to examine the serial interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=91.925) [configurations and statuses. We're also](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=95.52499999999996) [going to examine the speed and duplex on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=97.77954545454547) [our switches, as well as take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=99.59772727272734) [the trunk links on each of our devices](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=101.64318181818194) [that has one configured, namely the 3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=104.38382352941174) [and the two 2960 switches. Let's jump in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=107.26617647058818) [and do that. So here I am at my Windows](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=110.825) [workstation. This is the device at 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=114.79558823529416) [20. 10. If I open up a command prompt, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=117.61911764705891) [can do an ipconfig and take a look at that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=120.43026315789469) [configuration. Of course, it does have the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=123.06184210526304) [correct IP address on there. Let's get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=125.46785714285717) [started. The way that I usually do this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=127.9678571428572) [I just take a look at my drawing. So it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=130.325) [a really good idea to have the drawing for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=132.75978260869562) [the network right in front of you while](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=134.71630434782594) [you're doing the testing. It's almost](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=136.45543478260845) [useless to do testing on a network if you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=138.03088235294115) [don't know what you're looking at. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=141.20735294117637) [drawing we use here is so important](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=143.56029411764706) [because it tells me what I should be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=145.20735294117657) [pinging. So in this case what I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=147.08970588235314) [do is just start pinging my default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=149.325) [gateway. If I ping 10. 0. 20. 1, we should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=151.075) [get a response. And we're not getting a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=154.32500000000007) [response. We're getting Destination host](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=156.99166666666682) [unreachable. Well that's a problem. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=159.99166666666662) [the problem there is that we cannot get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=163.6431818181818) [off of our network here to test anything](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=166.1886363636363) [else until this is resolved. Well where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=168.7340909090908) [could the issues reside? Well, if we take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=170.95657894736843) [a look at our network configuration, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=173.48289473684218) [could have an issue with the VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=175.69342105263172) [configuration on the 2960-2 switch. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=178.43026315789479) [could be an issue with the trunk link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=180.95657894736854) [configuration on port F0/1. It could be an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=184.325) [issue with the configuration at F0/3. Or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=186.6107142857142) [it could be an issue with R2 on F0/1. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=188.59772727272727) [let's take a look at each one of those in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=191.32500000000007) [order. We're going to start with the 2960](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=194.05227272727288) [switch to make sure that that is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=196.075) [configured correctly. So since I can't SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=197.825) [to it because I have no network access,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=199.6886363636364) [I'm going to plug the rollover cable into](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=201.87045454545463) [the console port of that switch, and we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=204.05227272727288) [open up PuTTY and take a look. So we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=207.825) [log in, and let's take a look at the VLANs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=211.9132352941176) [first. We'll do show vlan. And show vlan](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=214.85441176470573) [will tell us what VLANs are currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=217.075) [configured on my switch and which ones are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=218.825) [active and what ports they're assigned to.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=220.825) [So VLAN 20 is assigned to my PC at port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=223.5125) [Fa0/3. If I take a look at my switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=227.8875) [physically, I can trace the cable from my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=230.8704545454545) [PC here right to port Fa0/3 so I know I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=233.415909090909) [connected to the right interface on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=236.4678571428571) [switch. It looks like the web server is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=238.46785714285704) [also configured correctly on port Fa0/2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=240.75357142857126) [And I can also examine that physically on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=243.03928571428565) [the switch. Well, let's take a look then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=246.46785714285699) [at our trunk configuration. If we do show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=249.32500000000005) [int trunk, that will show us what is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=251.9916666666668) [currently functioning on our trunk link.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=254.67499999999998) [Right now our trunk link is set for Fa0/1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=256.77500000000003) [and we have VLANs 20, 80, and 97 on that.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=259.92500000000024) [And that looks exactly correct. That looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=263.2197368421053) [exactly how that should be configured. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=265.43026315789484) [it appears that my 2960-2 switch is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=267.72499999999997) [configured accurately, which means that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=270.5249999999998) [the issue most likely exists on R2. Well,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=272.5249999999997) [let's move over to router 2 now and see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=275.55227272727274) [there's anything on router 2 that can be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=277.8250000000002) [causing the issue of us not being able to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=279.6431818181822) [communicate or ping our default gateway.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=282.3249999999999) [So I plugged into the console port of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=284.325) [router 2. Let's log in. And the first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=286.506818181818) [command I'm going to issue here is show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=288.688636363636) [int bri. That command is incredibly useful](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=291.4302631578947) [because it tells us all of the currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=294.0092105263156) [configured interfaces and IP addresses and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=296.9565789473681) [the state of each one. The first thing I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=299.4302631578948) [notice here is that FastEthernet0/1 only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=303.2197368421054) [has one sub-interface, and that's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=305.74605263157895) [problem because I need a sub-interface for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=308.2723684210527) [both VLANs 20 and 80. And I either forgot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=311.2197368421054) [to configure these, or at some point](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=314.9249999999999) [somehow they got deleted. Another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=317.72499999999974) [possibility is that I just completely](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=319.6375) [misconfigured them so poorly that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=321.5125) [router didn't accept the commands that I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=323.3875) [typed in. My bet is that I just simply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=325.9720588235295) [forgot to configure FastEthernet0/1. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=329.6779411764709) [let's do that now--int f0/1. 20,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=331.9613636363636) [encapsulation dot1q for VLAN 20, and our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=335.77954545454537) [IP address here is 10. 0. 20. 1. We need a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=340.23409090909075) [mask. Then we're going to set up interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=346.94038461538463) [FastEthernet0/1. 80. We'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=351.248076923077) [encapsulation dot1q of 80, and then ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=353.48289473684207) [address of 10. 0. 80. 1 with a 24-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=357.53552631578935) [mask. We should probably do a no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=362.7460526315787) [on those interfaces just in case. If we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=366.55576923076916) [now go do a show ip int bri, we should see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=370.02500000000003) [that we have all three interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=373.8750000000003) [configured. This looks like it's much](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=375.9750000000004) [better news for us. Let's go back to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=377.7535714285714) [command prompt of the PC and verify. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=380.3249999999999) [let's see now if I can ping 10. 0. 20. 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=382.6779411764706) [This looks much, much better. It appears](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=386.5602941176473) [that my interface not being configured at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=390.325) [all was the issue that we were experiencing.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=1&mode=live&start=397.325)

### [Demo: Testing Connectivity to the Rest of Our Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live)

[Well we can do a quick test now and see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=1.237) [we can ping 10. 0. 80. 80, which is our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=5.063086956521738) [web server. And we're getting a response](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=8.541347826086954) [from that as well. If we just go through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=10.665571428571432) [now and do some more pings around our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=13.23700000000001) [network, what I'd like to do is literally](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=15.522714285714287) [just go through and ping each IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=17.808428571428568) [that we have available to us here. So I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=20.094142857142845) [pinged my default gateway. I've pinged the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=22.41347058823529) [web server on VLAN 80. If I can ping the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=24.060529411764694) [web server, I can most likely ping the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=26.976130434782615) [default gateway at 10. 0. 80. 1, which I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=29.7587391304348) [can. Let's see if I can ping my Fast](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=32.88917391304351) [Ethernet interfaces on router 2 and router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=35.737) [3. So we'll do ping 10. 0. 0. 5. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=37.9245) [the FastEthernet0/0 on router 2. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=42.09414285714288) [successful. How about the FastEthernet0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=44.77546153846154) [on router 3, 10. 0. 0. 6. We can reach](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=47.46776923076924) [that as well. On router 3, we'll continue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=52.65805263157895) [pinging FastEthernet0/0, that is 10. 0. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=56.44752631578947) [14. I get a reply there. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=59.76331578947367) [outstanding news. We'll keep going. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=61.40366666666665) [going to do 13 now, which is our 3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=62.82033333333334) [switch. Outstanding! How about the two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=68.07033333333331) [VLANs on that switch? 10. 0. 10. 1--we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=70.57033333333331) [get a response from that. We'll try the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=73.57033333333327) [10. 0. 15. 1. Excellent! This is all good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=76.47229411764704) [news. Lots of success here. Ping 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=80.17817647058817) [97. 1--we get a response there as well.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=84.07033333333334) [How about F0/2 of our 3560 switch. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=88.95922222222225) [10. 0. 0. 10. I didn't type that in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=93.62588888888888) [correctly. There we go, 10. 0. 0. 10. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=97.12588888888885) [get a response. We'll try router 1 now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=100.6460909090909) [Ping 10. 0. 0. 9, and we get a response](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=103.91881818181815) [there as well. We'll try the two serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=108.00972727272722) [interfaces now. Those should be some of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=110.18938095238094) [the last interfaces that I want to ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=111.52271428571427) [here. 10. 0. 0. 1 is Serial0/0/0 of router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=113.04652380952379) [1. And then ping 10. 0. 0. 2. That's our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=117.06308695652174) [serial interface on router 2. A couple](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=121.84569565217393) [more things we should ping here. How about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=125.237) [the 10. 0. 97. 5 interface. That is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=129.237) [2960-1 switch's management address. Well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=133.29582352941173) [it looks like I just pinged the wrong](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=135.06052941176463) [address, 10. 0. 97. 5 doesn't exist on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=137.88405882352927) [network. The IP address of our switch up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=142.06308695652174) [there is actually 10. 0. 98. 5. And that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=145.8891739130435) [we do get a response from. That's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=149.862) [excellent! How about the other 2960](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=152.0495) [switch. That was 10. 0. 97. 6. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=153.9245) [hopefully we can get a response from this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=157.3481111111112) [guy as well. There we go. It looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=160.90366666666685) [the first two messages timed out there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=163.8159473684211) [probably because of some waiting around](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=165.65805263157904) [for ARP to kick in. And once that ARP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=167.237) [kicked in, now we can ping that address as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=169.60542105263164) [well. The one last thing that we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=171.9738421052633) [ping here is we need to try to ping out to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=174.14176190476192) [the internet. So let's see if I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=176.76080952380957) [actually get there. I'm going to ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=178.737) [Google at 8. 8. 8. 8, and that's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=180.487) [verify if our NAT is working correctly. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=182.987) [Network Address Translation is also working here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=2&mode=live&start=190.237)

### [Demo: Using Tracert to See the Path Out to the Internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live)

[So now that I've pinged all of my devices,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=0.857) [found out that they're working, let's do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=4.357) [some traceroutes. And we're specifically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=7.079222222222225) [going to do a traceroute out to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=8.571285714285713) [internet here I think because if we take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=10.47604761904761) [look at our network, the path that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=12.618904761904746) [would like our traffic to take, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=14.857000000000005) [fastest path from our VLAN 20 device out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=16.857000000000006) [to the internet is going to be using the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=19.1695) [Fast Ethernet links across our network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=21.982) [Those serial links are substantially](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=23.857) [slower than Fast Ethernet by a factor of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=26.20994117647058) [almost 100 times slower. So ideally our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=29.974647058823507) [traffic would flow from our PC on VLAN 20](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=32.982) [to router 2 to router 3 to the 3560 to R1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=36.357) [and then out to the internet. What I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=40.482) [do here is I can actually do a traceroute,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=44.33526086956519) [TRACERT, to 8. 8. 8. 8. Now before I issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=48.24830434782603) [that TRACERT command, I'm going to put the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=52.19033333333334) [-d right before the IP address. What](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=54.85700000000003) [that's going to do for me is it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=57.142714285714284) [prevent my workstation from trying to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=59.99985714285713) [resolve the IP address back into a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=61.71414285714284) [hostname. So I'll hit Enter here. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=63.857000000000006) [going to go to 20. 1, then 10. 6, then 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=66.19033333333331) [0. 0. 13, then 10. 0. 0. 9, then 203. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=69.85699999999993) [113. 89, and then we're going out to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=73.96811111111109) [internet. Now this traceroute is getting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=77.46811111111106) [us all the way to Google here. We might](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=79.52366666666664) [see a timeout here, and that's okay. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=82.5236666666666) [just means that one of the routers on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=85.257) [internet isn't responding to ICMP requests](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=88.85700000000006) [for our traceroute process. So let's start](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=91.25700000000009) [off and take a look at the first couple of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=93.45700000000001) [transactions here. We start at my PC, then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=95.45700000000004) [we go to router 2 at 10. 0. 20. 1. Then we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=97.70315384615384) [go to router 3, 10. 0. 0. 6. That's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=101.39546153846152) [FastEthernet0/1 interface there. Then we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=104.65700000000001) [go to 10. 0. 0. 13, that's 3560. Then to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=106.65700000000004) [10. 0. 0. 9, that's router 1. Then to 203.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=110.67518181818181) [0. 113. 89. That's the default gateway for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=114.76609090909088) [router 1. Then we do something goofy here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=118.03881818181813) [You can see a little bit of the internal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=119.99985714285714) [workings of my network that I have set up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=121.71414285714285) [here. I'm using 10. 128. 50. 1 on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=123.85699999999999) [inside network for my home here. And now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=126.85699999999994) [we see that bounce around a little bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=129.4403333333333) [before it goes out to the public IP space](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=131.77366666666657) [and gets to the internet. The critical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=134.3986666666665) [component that we're looking at here---I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=136.857) [right-clicked and something happened.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=139.857) [Apparently, we're pasting with the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=141.857) [right-click in the command prompt now. I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=143.67518181818187) [not sure what's going on there. What we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=146.057) [really interested in here if I scroll back](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=147.6569999999999) [up to my traceroute are the first one,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=149.2569999999998) [two, three, four, five hops there, and it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=151.35700000000006) [tells me the path that I'm taking through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=153.75700000000015) [the network. And this is the correct path through the network. It's what I expect.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=3&mode=live&start=156.27366666666666)

### [Demo: Testing SSH Connections to the Layer 3 Devices and Important Commands to Remember](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live)

[Let's now go and start testing SSH and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=0) [take a look at some show commands that'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=3.653199999999999) [show us more information than we can find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=7.306399999999997) [in just our show running configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=10.95118181818182) [command. So I'll start by opening up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=13.67845454545455) [PuTTY, and we're going to SSH to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=16.053) [loopback interface of router 1, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=18.613000000000003) [10. 0. 99. 1. We SSH there, and I get this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=20.853000000000005) [message that says, Hey, the server's host](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=23.79966666666666) [key is not cached in the registry. You](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=25.46633333333332) [have no guarantee that the server is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=27.347285714285714) [computer you think it is. I've discussed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=29.061571428571437) [this message before. Really all this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=30.910777777777778) [saying is it's saying that my workstation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=33.63299999999999) [is not aware of this encryption key that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=36.35522222222219) [we're going to use to encrypt traffic. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=38.517615384615404) [what we're doing is we're running the risk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=40.46633333333334) [that there might be a man-in-the-middle](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=43.133000000000024) [attack happening here. But I'm not too](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=45.13300000000004) [concerned about it because, one, this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=47.133) [the first time I'm SSHing to the router,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=48.883) [and, two, it's my lab environment so if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=50.883) [there's someone that's going to do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=53.34352631578949) [man-in-the-middle attack on my lab](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=55.554052631578976) [network, it's going to be me. I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=57.133) [realistically trust that this is the right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=59.933000000000014) [key to do the encryption. So I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=62.383000000000024) [say Yes there, and we're going to log in.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=64.99014285714283) [Excellent! So we're logged in to router 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=66.9187142857142) [One of the most common commands we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=69.1746666666667) [going to issue on a router is show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=71.2163333333334) [route. And the reason for that is a router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=73.84133333333344) [is literally the device that routes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=77.50142105263156) [traffic based upon the destination IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=80.02773684210523) [address, and the routing table is a list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=82.51395238095238) [of the destination IP addresses that this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=85.56157142857141) [router knows how to reach. If it doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=88.22823809523807) [have a specific route to any one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=91.03299999999999) [individual network, it's going to use this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=93.13299999999997) [gateway of last resort here, and that's my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=95.23299999999995) [default gateway that I configured with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=97.6955) [this static route right here. Remember the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=99.5705) [word gateway is another word for router.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=102.02188888888888) [Gateway of last resort--it's the last hope](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=105.13299999999998) [for getting our traffic to its](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=108.24411111111108) [destination. Our gateway of last resort.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=110.33299999999998) [We're going to use that as the very last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=112.13299999999997) [route to send our traffic. And we're only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=114.83299999999994) [going to use that if we don't have a more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=117.26343478260867) [specific route in our routing table. We do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=120.3069130434782) [have all of our OSPF routes in there, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=122.508) [our routing table looks good. What we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=124.1955) [would use this for is we'd do the show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=125.65473913043478) [route to verify to see if the route for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=128.2634347826087) [our destination network is in the routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=130.61126086956534) [table. And we'd only use that if we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=132.79966666666672) [having troubles accessing resources on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=135.46633333333347) [network. When we get into the next module](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=137.39615789473686) [when we do troubleshooting, this show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=139.50142105263166) [route command is going to be incredibly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=141.3435263157896) [valuable for us to do troubleshooting. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=143.27585714285712) [next one I want to show you here on this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=145.27585714285706) [router is the show controllers. And show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=148.133) [controllers, what that's going to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=151.44878947368431) [it's going to show you information about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=154.76457894736862) [your serial interfaces. It'll actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=157.66633333333337) [show you information about all of your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=158.99966666666677) [interfaces. But the one that we're most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=160.86633333333353) [interested in with the show controllers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=163.02773684210533) [command is the serial interfaces on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=164.92247368421064) [router should we have them. So if I issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=167.133) [show controllers as s0/0/0, it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=169.99663636363633) [tell me a lot of information. The most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=172.22390909090902) [critical information that I need to know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=174.51395238095242) [here and the stuff you're going to need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=175.84728571428585) [know for the exam is really written in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=177.56157142857168) [these first few lines of show controllers.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=180.633) [It's going to tell you the hardware that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=184.133) [is used for this serial interface, as well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=186.5330000000001) [as information about it. Here I'm using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=188.9330000000002) [the GT96K interface, and it has an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=191.84728571428576) [integrated FT1 CSU/DSU module. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=195.84728571428585) [to learn a little bit more about serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=198.76936363636364) [links in the second half of the material](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=201.31481818181814) [when we do the ICND2 material. For the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=203.86027272727264) [time being, really all you're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=206.46633333333338) [need to know for this for ICND1 is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=208.79966666666678) [you can use that show controllers command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=211.79966666666687) [to see what type of interface is connected](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=213.7330000000001) [there. You'll be able to see whether the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=215.86633333333353) [interface is a DTE end or DCE end, Data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=219.28299999999993) [Terminal Equipment versus Data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=223.33299999999983) [Communications Equipment. It'll also tell](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=225.133) [you the clock rate should it be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=226.6714615384616) [configured. Here since I'm using this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=228.82530769230786) [integrated module, I don't have the clock](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=231.2758571428571) [rate set. It's set automatically by the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=234.275857142857) [system. And I don't have a DCE or DTE end](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=236.5615714285714) [just because of the type of interface that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=239.41871428571417) [I'm using. For the time being, you do need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=241.7996666666667) [to know what show controllers Serial0/0/0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=244.79966666666678) [does, and it's going to show you what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=246.79966666666684) [hardware you're connecting with on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=249.4663333333334) [serial interface. We may also issue the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=251.46633333333347) [command show int f0/0. What this will show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=254.0377619047619) [us is information specific to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=257.085380952381) [interface itself. It shows us the hardware](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=259.37109523809545) [that we're using and the MAC address on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=261.46633333333324) [that interface. It tells us the status of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=263.59966666666645) [the interface in the very first line. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=265.84728571428565) [tells us the IP address we're using, as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=268.13299999999987) [well as the parameters set for Ethernet.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=270.4859411764706) [So we have our maximum transmission unit,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=272.95652941176485) [our bandwidth, delay of line, among other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=275.4271176470591) [things. It tells us the duplex and speed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=278.19182352941186) [setting of our connection. It also gives](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=281.4859411764709) [us a list of statistics about that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=284.2758571428572) [interface, and it will list for us the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=286.94252380952406) [errors that occur on this interface. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=289.9901428571433) [we can use this information sometimes to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=293.28684615384617) [troubleshoot connections. So if we do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=297.056076923077) [show int f0/0, and we see these runts or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=299.8637692307693) [giants, a runt is a frame that's too tiny,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=302.97915384615413) [a giant is a frame that's too big, if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=306.09453846153895) [see an input error, meaning it couldn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=309.79966666666684) [read the frame header, a CRC error, maybe](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=312.4663333333337) [we're getting errors where we were not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=315.36829411764705) [able to successfully verify the integrity](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=317.01535294117656) [of the frame, meaning the calculations in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=318.427117647059) [that frame check sequence field, the FCS](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=320.6066842105262) [field of our frame, which is at the very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=323.18563157894715) [end of the frame, that FCS value did not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=326.3961578947368) [match the calculated value we did on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=328.7645789473682) [router. So we'd see some CRC errors here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=330.86984210526276) [So we can look at the errors using that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=333.7119473684209) [show int command. A very, very useful](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=337.02773684210496) [command is show ip int bri. That may or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=339.1764782608695) [may not be on the CCNA, but the important](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=341.5243043478259) [part here is that show ip int bri on a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=343.87213043478226) [router tells us all of the interfaces,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=347.9224736842106) [their IP addresses, whether they're up or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=350.86984210526333) [down, as well as how they were configured.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=354.0277368421052) [This NVI0, that's a NAT Virtual Interface.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=357.8172105263156) [That NAT Virtual Interface is given the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=361.133) [same IP address that we use on one of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=363.23300000000006) [inside links here, so it uses the same IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=366.2330000000002) [address it had on FastEthernet0/0. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=369.13299999999987) [NAT Virtual Interface is used literally to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=371.13299999999975) [do the NAT translations when we're trying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=373.4663333333333) [to get out to the public internet. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=375.7996666666665) [move on to the next device and take a look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=378.39966666666663) [at some commands there. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=381.06633333333315) [test SSH. We'll look at the routing table](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=382.8472857142857) [and other information on a few of these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=384.75204761904763) [devices here. So I'm going to close out of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=386.65680952380956) [router 1, and we're going to open another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=387.9107777777776) [PuTTY session. We're going to go to router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=389.5447647058824) [2 this time. We'll type in 10. 0. 99. 2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=391.427117647059) [And I have to type that in correctly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=395.633) [obviously. You realize I cannot type, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=399.633) [I've made a career as a network engineer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=402.53299999999984) [and instructor typing commands into](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=405.73299999999966) [routers. Clearly I make a lot of errors,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=407.73299999999955) [but not enough errors to make me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=410.60358823529424) [unsuccessful at it. So let's keep going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=413.0741764705885) [here. We'll say login here. Go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=416.28684615384617) [privilege mode. It looks like my router is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=420.056076923077) [set up correctly here for SSH. I'm able to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=422.897705882353) [access it. If I do a show ip route, we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=425.5447647058826) [take a look at our routing information.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=428.383) [Here we also have a gateway of last resort](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=430.133) [set. And the gateway of last resort here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=433.1329999999998) [is different than the gateway or last](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=435.7996666666663) [resort on router 1 for very good reason.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=437.9901428571428) [On router 1, our gateway of last resort](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=440.27585714285703) [was our next hop to the internet. And we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=442.56157142857126) [told router 1 via OSPF's default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=446.633) [information originate command, we told](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=449.633) [OSPF to take that default route and tell](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=451.6663333333333) [the other devices about it. So here the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=453.7996666666665) [gateway of last resort is 10. 0. 0. 6. 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=456.1329999999999) [0. 0. 6 is router 3 over our Fast Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=459.46633333333307) [interface. So if we look down at our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=462.7996666666662) [routing table, we can see that we learned](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=465.58300000000014) [our default route from OSPF. How do I know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=468.3830000000003) [that. Well, this letter O indicates that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=471.7800588235295) [we learned that route via OSPF. So we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=474.6624117647061) [learning our default route from OSPF. This](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=477.70442857142854) [is exactly what we wanted. And now this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=479.7044285714285) [router has a path to any network that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=481.95118181818174) [want. If the network is not listed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=484.405727272727) [directly in the routing table, we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=486.31481818181777) [to use that default route as the primary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=488.30947058823534) [route to reach that destination or at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=490.66241176470606) [least attempt to reach that destination.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=492.9751052631579) [On router 2, we have that serial interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=495.50142105263166) [here as well, so we can do show int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=498.86984210526333) [controllers s0/0/0. Excuse me, that's show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=504.4187142857143) [controllers s0/0/0. Well, we'll get it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=508.70442857142865) [eventually. There we go. And once again,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=511.39615789473686) [this is telling me that my hardware](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=513.606684210526) [interface here is this GT96K with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=515.8172105263152) [integrated FT1 CSU/DSU module. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=517.9751052631578) [what you need to know, what the show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=520.1856315789472) [controllers command does here. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=523.133) [just the other end of the serial interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=525.3435263157894) [that's connected to router 1. Any time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=528.2908947368419) [we're in the show commands and you want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=530.7996666666668) [stop looking at them, you can issue the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=533.7996666666671) [Ctrl+C command, and that will stop the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=536.4663333333341) [command where it's at and exit back to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=538.6329999999998) [privilege mode prompt or config mode](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=541.0329999999994) [prompt depending upon where you're issuing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=542.8329999999992) [the command from. All this other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=544.7996666666669) [information looks like gibberish. And for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=546.7996666666671) [all practical purposes for CCNA level](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=549.133) [materials, it is gibberish. We don't need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=552.133) [to know what's going on here. We might be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=554.7330000000002) [able to use this information for much more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=556.5330000000006) [sophisticated troubleshooting with serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=558.133) [links. Typically when we're at that level,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=559.5615714285716) [we're calling the Cisco technical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=562.0615714285718) [assistance center, or TAC, instead of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=563.8388823529413) [trying to fight through all of these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=565.9565294117649) [little nuances and numbers in this table.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=568.4271176470592) [If you actually issue the command show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=570.7119473684209) [controllers and look at the whole thing,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=572.92247368421) [there's a lot of gibberish there. And we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=575.133) [don't need to be concerned about that. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=577.799666666667) [just need to be concerned about that first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=580.2758571428571) [part of the command here to take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=581.418714285714) [what interface hardware we are using. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=582.8472857142851) [can do show ip int bri, and that will show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=585.5014210526318) [us the interfaces again. Another command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=590.2382631578954) [we can issue is show ip protocols. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=592.6593157894738) [show ip protocols, what that'll do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=594.7645789473688) [it'll show us the routing information](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=596.606684210527) [that's currently enabled. It'll show us](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=598.9996666666668) [the routing protocol information and what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=601.799666666667) [networks we're currently advertising for.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=604.4271176470588) [So this can be a very useful command when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=605.8977058823527) [we are troubleshooting OSPF issues or any](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=608.5447647058818) [routing protocol issues for that matter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=611.0774444444446) [because it tells us the router Id, and it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=613.4107777777781) [tells us the networks that we are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=617.223909090909) [currently advertising. Let's try SSHing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=621.0420909090906) [now into router 3. I'm going to close out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=623.046043478261) [router 2 and open up another session here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=625.785173913044) [for router 3. Now I'm closing out the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=628.21995652174) [sessions only to keep my screen nice and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=630.7239090909094) [clean so that we can evaluate each one of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=633.2693636363643) [these routers individually. When you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=636.133) [working with a network like this, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=638.1329999999999) [you're doing troubleshooting, oftentimes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=640.9329999999998) [you may need to have more than one SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=642.5447647058824) [session open. That's completely acceptable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=646.2506470588232) [to do. So we'll log in here to router 3.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=648.3094705882348) [I'm going to do show ip route. And our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=651.2663333333333) [routing table looks good here. We can see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=653.733) [that once again we learned our default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=656.1329999999996) [route by OSPF. Here on router 3, we don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=658.2329999999993) [have our serial interfaces. That doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=661.1330000000003) [mean we can't do show controllers. We can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=663.1330000000005) [just do it for FastEthernet0/0. And here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=665.6663333333333) [it'll tell you the same thing. It tells](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=667.5329999999999) [you the type of hardware that we're using.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=670.042090909091) [But, again, this is well beyond the scope](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=673.678454545455) [of the CCNA material. You just need that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=677.314818181819) [show controllers command for your serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=680.223909090909) [interfaces. Show ip int bri will show us](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=681.8602727272726) [the states of our interfaces. It looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=684.9329999999999) [like SSH is working correctly here, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=687.7329999999997) [everything else looks fantastic. I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=690.3472857142857) [to open up a new PuTTY session. This time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=691.6329999999997) [we'll leave that session open to 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=693.883) [99. 3. Now we're going to SSH to our layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=696.883) [3 switch, the 3560. We can SSH to any IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=700.633) [address we want here. I'm going to SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=704.2330000000002) [our management VLAN interface here, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=707.3830000000004) [is 10. 0. 98. 1. And that brings me to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=709.6547391304348) [3560. Now since we're on a switch, we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=715.3938695652171) [different commands that we can issue here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=720.0895217391299) [So we can certainly issue a show ip route](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=722.7996666666669) [on this 3560 switch because we're using it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=725.7996666666672) [as a layer 3 switch, which means it's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=728.508) [router in addition to a switch. Here we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=731.883) [can see again that our default route was](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=734.7996666666668) [learned via OSPF, and it appears that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=737.4663333333338) [have a complete routing table as well.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=740.1330000000007) [Additionally on the switch, we can issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=743.133) [the command show int trunk. Show int trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=746.633) [will show us information about the trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=750.3829999999999) [link configuration. It'll tell us what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=753.2996666666663) [VLANs are explicitly allowed on that trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=755.4663333333335) [link. On 3560, we can also do show ip int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=757.7996666666671) [bri. What'll happen here is it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=760.872130434783) [show us the IP addresses on our VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=763.306913043479) [interfaces, which are virtual interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=766.133) [or SVIs, Switched Virtual Interfaces. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=768.633) [shows us the IP addresses on our ports](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=771.4859411764706) [where we have issued the no switchport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=774.3094705882355) [command. The rest of the interfaces here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=776.7800588235298) [it looks like they're in an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=778.799666666667) [administratively down state, meaning that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=780.466333333334) [we have issued the shutdown command on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=781.8552222222231) [those interfaces, although in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=785.7330000000002) [FastEthernet0/4, nothing is assigned to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=788.1330000000003) [it, and it's unset. Let's take a quick](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=791.133) [look at that interface. So the command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=793.314818181818) [that we use to look at just the config for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=795.2239090909088) [one interface is show run, and then we say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=798.711947368421) [int and then the number f0/4 here. Well it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=803.4487894736837) [looks like there's a configuration on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=807.7044285714287) [there for a voice VLAN configuration. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=809.4187142857147) [the voice phone is connected to the 2960-1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=811.4966363636364) [switch. So what I'm going to do actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=814.4057272727274) [is go fix this quick. We do not want port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=817.3148181818184) [F0/4 of our switch to have this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=821.1329999999999) [configuration on it. It should have the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=823.9329999999998) [same configuration as FastEthernet0/5,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=826.9996666666668) [which is simply that it's shut down. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=828.8663333333336) [can fix that by going into config t, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=832.5677826086958) [if you didn't catch it, the reason that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=834.5243043478266) [I'm fixing this is that I don't have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=836.2634347826096) [voice phone connected to port F0/4 here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=838.654739130435) [In fact if I look at my drawing, I don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=840.785173913044) [have anything connected to port F0/4. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=843.828652173914) [ideally I want to do something here that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=846.2330000000002) [will allow me to prevent a device from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=849.0330000000004) [connecting on that interface when it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=851.9107777777779) [shouldn't be. So we're going to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=854.2441111111114) [default int f0/4. And what that will do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=856.9663333333338) [it will reset that interface's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=860.2506470588237) [configuration back to its default state.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=862.0153529411767) [If I do show run now int f0/4, you can see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=864.133) [that our config now has been completely](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=868.7645789473686) [erased. It used to have all of this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=871.7119473684213) [information on it, and now it's completely](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=873.9996666666666) [gone. Now we can say int f0/4 and issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=875.8663333333332) [the shutdown command. And now if I do my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=879.769363636364) [show ip int bri again, now we should see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=883.8602727272735) [that FastEthernet0/4 is now in an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=887.9107777777779) [administratively down state, which is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=890.5774444444446) [correct way that it should be here. We did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=893.2441111111114) [set a loopback interface on our layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=896.0774444444448) [switch as well. So I could've used that to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=898.2996666666675) [SSH to the switch. I chose to use the 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=900.9329999999998) [0. 98. 1 address. Either address should've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=903.9329999999993) [worked fine here. As a matter of fact, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=906.2382631578947) [can open up another PuTTY session and SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=909.5540526315788) [to 10. 0. 99. 4. And, again, we are going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=912.7645789473685) [to be able to access the 3560 switch.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=919.0803684210529) [Which is better here? Neither. They're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=924.133) [both exactly the same. We're accessing the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=926.5329999999999) [same device. We just happened to be SSHed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=929.3329999999997) [into the same device twice. One other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=931.847285714286) [thing that you should know here is that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=933.8472857142864) [when we're SSHed in, you should notice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=936.133) [that we were not getting any messages](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=938.0774444444448) [saying, Hey, this interface went up; this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=940.0218888888896) [interface went down. And we can change](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=942.1918235294119) [that by issuing the command terminal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=944.6624117647061) [monitor. And what that'll do is it'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=946.7800588235298) [force all of those log messages that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=948.7693636363636) [used to seeing when we are in the console](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=950.9511818181816) [port, it'll force those all to display on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=953.5615714285715) [our screen here in SSH. So I can verify](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=956.990142857143) [that by going to config t and then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=959.8949047619046) [exiting. And it should pop up a message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=961.4187142857138) [saying, Hey, somebody just tried to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=962.942523809523) [configure the device from line vty0. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=966.3148181818182) [this dude is named Ross. So it tells you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=970.3938695652174) [the username of the person logged in to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=972.7416956521738) [SSH and what vty line they're currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=974.8286521739128) [connected to, as well as the IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=976.8472857142858) [that I'm coming from. So my IP address of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=979.7044285714289) [my workstation here is 10. 0. 20. 10. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=982.8830000000002) [I'm SSHing to this 3560 switch. So the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=986.0330000000004) [terminal monitor command will get those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=988.5330000000001) [messages to pop up on your screen.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=989.7330000000004) [Sometimes that's useful if you're bringing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=991.133) [interfaces up or down or you're making changes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=4&mode=live&start=997.133)

### [Demo: Testing SSH Connections to the Layer 2 Devices and Important Commands to Remember](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live)

[We have two more devices that we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=0.545) [SSH to and do some checking on. Let's go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=2.795) [to our 2960 switch. So go to 2960-1. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=5.597631578947368) [IP address there is 10. 0. 98. 5. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=10.33447368421053) [log in. Go to privilege mode. Now on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=14.995) [2960s, the show ip route command isn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=19.044999999999995) [going to work. And the reason there is I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=22.19499999999999) [don't have a routing table, at least not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=24.90863636363636) [the same kind of routing table that I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=26.726818181818174) [on my 3560 switch. That 3560 switch is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=28.95409090909091) [layer 3 switch. The show ip route command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=32.635909090909095) [just won't work here. We can do show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=35.90863636363635) [int bri, and that will show us the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=39.21166666666668) [information that we saw in the 3560. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=42.2116666666667) [going to see our svi interfaces. Here we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=44.87833333333334) [have VLAN 98 configured as our switched](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=47.54500000000002) [virtual interface, that's our management](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=49.87833333333337) [interface. We can see that FastEthernet0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=51.67) [and 0/2 here have some kind of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=53.92) [configuration on them. It looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=56.545) [FastEthernet0/2 is in a down state. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=58.545000000000016) [let's check to see if my workstation is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=60.80586956521739) [unplugged. If I look over at the switch, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=62.89282608695652) [do see that right now my cable is not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=65.24065217391303) [plugged in to the switch. So what I'll do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=67.99954545454544) [is go back and issue that terminal monitor](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=71.27227272727268) [command. And now I'm going to plug in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=74.18136363636356) [switch to the workstation. And hopefully](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=77.4923684210526) [if we've done it correctly, we should see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=79.70289473684205) [a message on here saying that the state of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=82.54499999999999) [the port changed. So this is exactly why](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=85.54499999999994) [we would want to use that terminal monitor](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=88.54500000000003) [command so that we can see changes that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=91.74500000000008) [we're making on the switch and see the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=94.8307142857143) [logging messages that show up. So if I do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=97.11642857142863) [show ip int bri again, now we'll see that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=100.34500000000001) [interface FastEthernet0/2 is in the up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=104.39500000000004) [state. So that'll show us the layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=107.09500000000006) [2/layer 3 information. We can also do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=110.7214705882353) [show int status. And show int status will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=114.95676470588238) [show us the layer 2 information about this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=118.33071428571431) [switch. So FastEthernet0/1, that is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=121.1878571428572) [currently connected, meaning it's up. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=124.21166666666669) [configured as a trunk link. And then the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=127.83911764705883) [duplex and speed here are set both](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=130.19205882352932) [automatically, that's what the a means, to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=132.250882352941) [full and 100. So it's set to 100 mbps full](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=135.01558823529408) [duplex. And like I said, that a means that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=139.13323529411755) [it's set automatically. The last field](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=142.21166666666673) [here, the type field, that field is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=144.2116666666668) [indicating what type of interface this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=146.34500000000003) [and what its capabilities are. Here it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=148.2116666666668) [saying it's a 10-MB or 100-MB Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=150.48617647058822) [interface. The BaseT indicates that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=153.78029411764703) [using twisted pair cabling to connect it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=156.60382352941173) [That's the category 5 or category 6](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=159.38710526315793) [cabling with an RJ45 end on it. The rest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=161.96605263157906) [of our interfaces here we can see are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=165.0713157894737) [disabled, meaning that the shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=167.17657894736848) [command has been issued, and that these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=168.49236842105273) [interfaces should we move them to a no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=170.60382352941173) [shutdown state, they're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=173.42735294117637) [automatically negotiate the speed in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=175.19205882352927) [duplex. If you remember from one of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=176.74500000000003) [switching courses, we did take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=179.14500000000012) [these speed and duplex settings. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=181.545) [sometimes we need to modify those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=183.21166666666662) [especially for older gear that has a very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=184.87833333333325) [old NIC on it. A lot of times those will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=187.1283333333333) [only operate at 10 MB half duplex, and you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=190.04499999999987) [have to actually force the interface to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=192.6699999999998) [10 MB half duplex in order for it to work.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=195.2116666666667) [Oftentimes it won't automatically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=198.545) [negotiate. Using the show int status is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=200.32277777777782) [very quick way to see how those interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=203.87833333333347) [are currently configured. You may notice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=207.295) [on Gi0/1 here and Gi0/2, there's some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=209.545) [unusual configuration there especially in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=212.17) [the type of the interface. On Gi0/1, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=214.6783333333333) [have 1000BaseSX SFP. Well, what I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=218.94499999999996) [looking at there is on my 2960-1 switch, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=221.65026315789476) [have two extra ports on that switch. Those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=224.96605263157906) [two extra ports on the switch are used](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=227.89499999999998) [oftentimes to connect to other switches or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=230.69499999999994) [up to a router. Here what I have is I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=233.1449999999999) [plugged in a laser into the port Gi0/1. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=236.68785714285715) [there's a slot in there called an SFP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=239.95676470588234) [port, which is a small form pluggable,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=243.25088235294112) [SFP. It's a little tiny network interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=246.13323529411755) [card. Usually we use lasers in there. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=248.8526923076923) [SX indicates that it is a multi-mode](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=252.08346153846153) [laser. S, short-haul for multi-mode. L if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=255.85269230769237) [it was a 1000-base LX, that's long-haul](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=259.43388888888893) [for multi-mode. At least that's how I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=262.54500000000013) [always remember the S and the L in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=265.65611111111133) [SFPs. And we can see that on Gi0/2, I just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=268.295) [don't have an SFP plugged in there. I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=270.795) [also get an SFP that is a Gigabit Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=273.4021428571429) [connection using the 1000-base TX so that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=277.2592857142859) [I can actually plug in an RJ45 connection](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=280.259285714286) [into there with category 5 or 6 cabling.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=283.4680769230768) [We can also get this information by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=286.545) [issuing the show int command. If I do show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=288.295) [int f0/1, it tells me a lot of information](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=291.1449999999999) [including, again, any errors that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=294.7449999999997) [occurring on that interface. And those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=297.1449999999996) [errors, looking for those errors, we don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=298.65611111111116) [necessarily need to know what all the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=300.21166666666676) [errors mean, but we do need to know that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=301.84934782608696) [if you see this input error or CRC errors,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=304.5884782608694) [if you see those numbers that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=307.32760869565186) [relatively high there, chances are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=309.63590909090914) [something is up. And if those numbers are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=311.454090909091) [high, usually it's an issue with a cable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=313.9735714285714) [or it's an issue with a network interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=316.2592857142856) [card on the workstation. So those are two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=318.545) [things that you'll need to look at should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=320.631956521739) [you see a lot of errors there. Show int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=322.71891304347804) [trunk will show us information about the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=325.32277777777784) [trunk link. It'll show us what VLANs are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=328.04500000000024) [currently configured on that trunk link.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=331.15611111111156) [And show vlan will show us all the VLANs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=332.7354761904762) [that are configured, as well as what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=334.8783333333334) [interfaces they're assigned to. Ideally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=336.545) [we have VLAN 1, the default VLAN here, not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=338.68785714285724) [having any ports in it at all. Let's do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=342.54500000000024) [one more switch here. Let's go on to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=346.59261904761905) [2960. So here we'll go to 10. 0. 97. 6.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=351.3069047619047) [We'll log in here. And just like 2960-1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=356.545) [we can do the same types of commands--show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=359.9134210526317) [ip int bri. That should show us all of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=363.28184210526337) [ports and what their current configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=367.04499999999985) [is. We can do show int status, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=369.18785714285684) [should show us what's connected and what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=371.8783333333332) [VLANs they're on or if it's a trunk link,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=374.2116666666664) [as well as the speed and duplex settings](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=377.21166666666664) [and the type of interface that it is. On](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=379.87833333333316) [the second 2960 switch, my Gi0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=382.95409090909095) [interface, I do not have an option with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=385.40863636363656) [the SFP ports, those small form](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=388.68136363636404) [pluggables. What I do have is I have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=391.13590909090965) [physical interface on the switch that's a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=394.3450000000002) [Gigabit Ethernet interface that allows me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=396.79500000000036) [to plug a category 5 or 6 cable with an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=398.87833333333333) [RJ45 end on it into that interface. And,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=402.2116666666665) [again, I usually use those as my trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=404.93388888888893) [links. However, in this case, I'm simply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=408.04500000000024) [using F0/1. Does it matter which we use?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=410.76722222222264) [Well, it depends upon your environment.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=413.5449999999999) [Since this is a lab environment, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=415.545) [doesn't really matter which I use because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=417.1005555555556) [I'm not concerned about overwhelming the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=418.6561111111112) [trunk link between my switch and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=420.414375) [router. Additionally, my router only has a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=423.4571875) [Fast Ethernet interface on it, so even if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=426.5) [I did use the gig interface here to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=428.4047619047619) [connect up to my router, It would make no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=430.30952380952385) [difference. It would still negotiate at 100 mbps.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=5&mode=live&start=435.5)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live)

[To wrap up what we've done here, we tested](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=0) [and examined our lab configuration using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=3.913) [ping and traceroute from our PC. We also](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=6.5216666666666665) [made some configuration changes that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=9.492666666666668) [found along the way. Initially we weren't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=11.492666666666672) [even able to ping anything on the network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=13.876) [from 10. 0. 20. 10 because for whatever](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=16.676) [reason, the FastEthernet0/1 sub-interfaces](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=19.47600000000001) [of. 80 and. 20 were not configured. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=22.226000000000003) [added those in there to make our network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=28.381555555555558) [work, and we did some testing with it. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=30.603777777777786) [we went in and took a look at a lot of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=33.04822222222222) [those configurations using those show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=35.49266666666666) [commands. In the next module, what we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=36.603777777777765) [going to do is add some services to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=38.326) [network. Namely we're going to add port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=40.576) [forwarding Network Address Translation so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=42.59070588235296) [that somebody on the internet can access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=44.06129411764709) [our web server on the inside. And,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=46.08915789473684) [additionally, we're going to put an access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=47.93126315789474) [control list so that when we do access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=49.77336842105264) [that web server from the outside, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=52.09872727272728) [only going to access it on port 80 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=54.32600000000002) [nothing else. I hope you enjoyed watching. Let's move on to our next module.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m4&clip=6&mode=live&start=57.1896363636364)

## [Adding Services](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=0) [In this module, we're going to add some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=2.4) [services to our network. Our goals here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=5.6000000000000005) [are going to be to add port forwarding](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=8.210526315789473) [Network Address Translation so that a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=11.157894736842103) [device on the internet can access our web](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=13.333333333333334) [server at 10. 0. 80. 80. Additionally, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=16.000000000000004) [want to create an access control list to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=18.631578947368418) [protect our web server so that we're only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=21.15789473684209) [allowing traffic on port 80 to reach that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=23.68421052631576) [server. And what that'll do is it'll help](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=26.79999999999999) [protect the server from attacks on port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=29.99999999999998) [numbers, TCP port numbers, that aren't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=32.66666666666667) [port 80. We only need port 80 for this web](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=34.666666666666686) [server to work, so we're going to block everything except port 890.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=0&mode=live&start=38.00000000000004)

### [Creating Our Access Control Lists](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live)

[Let's take a look at adding services now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=1.218) [What we'll need to do here is we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=4.218) [to need to add a port forwarding NAT rule](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=6.468) [on router 1 to allow the web server access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=8.718) [on VLAN 80 at 10. 0. 80. 80. Additionally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=11.30890909090909) [we're going to add that ACL to allow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=14.58163636363636) [access only to our web server on port 80.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=17.490727272727266) [Let's take a look at our drawing. Now on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=21.218) [router 1, we're going to have to apply our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=23.67254545454546) [port forwarding rule to router 1, and it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=26.12709090909092) [going to be using the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=29.064153846153854) [FastEthernet0/1 IP address. That's the one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=31.833384615384634) [that we learned via DHCP. So when we set](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=34.07514285714286) [up our port forwarding rule, we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=36.64657142857142) [to use that interface as the IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=38.64657142857141) [that a user on the internet would access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=41.21800000000002) [our web server on. Now when we're building](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=43.8846666666667) [the access control list, we have options](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=46.551333333333346) [here. If you remember based on the rules](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=48.884666666666696) [that Cisco wants us to follow, we put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=51.55133333333335) [standard access list as close to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=54.21800000000004) [destination as possible, and we put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=56.62976470588236) [extended access lists as close to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=59.10035294117649) [source as possible. My rule if you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=61.982705882352974) [remember was that we put the access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=64.48115789473684) [control list where we need to put it. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=66.69168421052628) [do we want to put that access control list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=69.48115789473684) [on router 1? Well we could certainly do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=71.84957894736836) [that. And that would not be inadvisable,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=73.95484210526304) [although putting that access control list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=76.55133333333332) [on F0/1 of router 1 actually does make](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=78.88466666666663) [that a little bit messy because we have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=81.69419047619049) [account for other traffic that's going in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=83.83704761904765) [and out of our Fast Ethernet interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=85.50371428571434) [there. And what we need to do is actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=87.77355555555555) [use something called a reflexive access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=91.27355555555552) [list to get that device to work as we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=93.4788695652174) [would expect it to. It's a bit beyond the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=95.82669565217391) [scope of this course. So we want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=98.17452173913043) [examine this a little bit differently. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=100.48115789473682) [instead of putting that access control](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=102.69168421052626) [list to filter our traffic before it gets](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=104.5864210526315) [into router 1, what I'm going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=106.64657142857145) [instead is put our access control list on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=108.55133333333337) [F0/1 of router 2. And we can't just apply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=110.73973913043478) [it to F0/1. We'll have to actually apply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=115.43539130434782) [it to F0/1. 80 because that's our VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=119.60930434782607) [interface for the 10. 0. 80. 0 network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=123.718) [We're going to apply that in the outbound](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=127.718) [direction. So we're going to apply that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=131.718) [access control list as traffic leaves](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=134.0641538461539) [FastEthernet0/1. And the idea that I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=135.91030769230784) [behind this is that we want to filter the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=138.0440869565218) [traffic getting to the web server so when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=140.7832173913045) [we put this access control list on F0/1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=143.218) [80 going in the outbound direction, what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=146.01799999999994) [that'll do is it'll allow only port 80](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=148.4679999999999) [traffic to flow to our web server](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=151.16536842105265) [regardless of the device that's accessing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=153.37589473684218) [the web server. So it won't matter if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=155.2706315789475) [we're out on the internet or on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=157.12709090909092) [internal network, we're only going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=158.58163636363642) [able to communicate with 10. 0. 80. 80 on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=159.85436363636373) [port 80. Let's take a look at how we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=163.88466666666662) [construct that access control list. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=168.59895238095228) [here we go. We have our network Everywhere](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=171.58642105263158) [on the right, and we have traffic flowing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=174.5337894736843) [from Everywhere or anywhere on the network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=177.481157894737) [or internet flowing into our device at 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=180.093) [0. 80. 80. When I write my access control](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=183.093) [list, we're going to use that same chart](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=186.39981818181823) [that I set up in the access control list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=189.30890909090922) [course, and then we just start building](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=192.3758947368421) [our ACL rule here. So we want to permit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=193.48115789473687) [some traffic. And the protocol we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=194.90221052631586) [to permit here is TCP. HTTP uses TCP at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=197.57094117647057) [the transport layer. The source IP address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=201.8062352941176) [can be anything because the traffic is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=204.6297647058823) [coming from anywhere including the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=207.10035294117637) [internet. We will have no idea what the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=208.86505882352927) [source port is. The source port could be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=211.21799999999993) [anything because that's going to be an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=213.50371428571415) [ephemeral port as traffic moves from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=215.60688888888888) [Everywhere, the source, to the destination](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=217.9402222222222) [of 10. 0. 80. 80. Our destination IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=220.2735555555555) [address of course is that same address,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=223.07514285714282) [10. 0. 80. 80, and the destination port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=225.07514285714277) [here is the port number of the HTTP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=227.360857142857) [server, port 80. After that, we want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=230.093) [deny everything else. We don't want any](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=233.093) [other traffic getting to that web server.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=235.3608571428571) [We can use this now to write our access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=237.36085714285704) [control list, so we have our access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=239.93228571428554) [control list that's extended. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=241.7969473684211) [to use a named access control list here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=243.37589473684218) [call it WebFilter. We're going to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=245.66244444444445) [permit TCP any source address with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=248.77355555555565) [destination of host 10. 0. 80. 80 with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=251.88466666666685) [destination port number of 80. Our second](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=255.12709090909087) [line there, deny ip any any, which will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=257.3543636363636) [deny the rest of the traffic. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=259.8998181818181) [look at our tasks. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=261.968) [configure port address translation on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=264.593) [router 1. We're going to test access to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=266.468) [the web server from the internet. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=268.64657142857146) [we're going to do that before we apply our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=270.31323809523815) [access control list. Next, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=272.5305) [configure our access control list on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=274.718) [router 2. And then we're going to test](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=276.593) [access to the web server from both the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=278.41799999999995) [inside network, and then we'll test again](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=280.01799999999986) [from the outside internet network as well.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=281.718) [Before we go configure that device, I want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=285.218) [to point out a few things. First, there's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=287.50371428571424) [a rule in Cisco land that says that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=289.91800000000006) [always apply extended access control list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=293.06800000000027) [as close to the source as possible. Well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=295.1680000000004) [if I did that here, it means that I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=297.8089090909091) [have to apply an access control list to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=300.9907272727272) [every single interface that has a network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=303.618) [device connected to it that might want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=306.41799999999984) [reach the web server, as well as R1's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=309.61799999999965) [FastEthernet0/1. So I'd have to apply an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=312.968) [ACL to router 1, F0/1. I'd have to apply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=316.0305) [an ACL to interface VLAN 10 and interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=319.62976470588245) [VLAN 15 of my 3560. Additionally, on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=322.4532941176473) [router 2, I'd have to apply another access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=325.28466666666674) [control list on F0/1. 20. And what that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=329.5513333333336) [would do then is I would have that access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=333.0074736842105) [control list, the extended access control](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=335.3758947368419) [list, and I would have that applied to all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=336.9548421052628) [the devices nearest to their source. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=340.0751428571427) [issue with that is now I have to manage](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=342.5864210526316) [three access control lists, actually four](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=345.9022105263156) [access control lists, and every time I add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=348.112736842105) [another network to this system, I will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=350.9571304347825) [have to add another ACL to do the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=353.39191304347804) [exact thing. So in this case, I'm actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=356.52234782608656) [putting my extended access control list as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=359.4285263157894) [close to the destination as possible so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=362.0074736842103) [that I only have to manage one access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=364.5816363636364) [control list, and effectively what I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=367.4907272727274) [doing is creating a DMZ on R2. And that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=369.6725454545456) [DMZ on R2 allows me to filter the traffic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=372.8266956521739) [going just to the web server, and it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=375.56582608695635) [allows me to only filter based on port 80.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=378.00060869565186) [So this is one of those cases where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=380.8846666666666) [Cisco's rule doesn't actually apply to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=383.5513333333331) [network. We put the access control list](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=385.8846666666663) [where we need to put it. The second thing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=387.85436363636353) [here is in order to do this testing, what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=390.3089090909088) [I'm doing here is I'm moving my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=392.7894285714286) [workstation that was down on VLAN 20, I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=394.7894285714285) [taking it off of switch 2960-2, and I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=397.07514285714274) [going to hook it up to my internet and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=399.85436363636376) [connect it to IP address 203. 0. 113. 94.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=403.5361818181822) [And what this will allow me to do is test](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=407.218) [my port address translation, as well as test my access control list on R2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=1&mode=live&start=417.218)

### [Demo: Configuring and Testing Port Address Translation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live)

[So here I am on my Windows machine. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=0) [open up a command prompt and do an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=3.3312000000000004) [ipconfig, we can see that I have IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=5.996160000000001) [address 203. 0. 113. 94. If I send a ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=8.888) [message to 203. 0. 113. 92, which is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=14.488000000000005) [DHCP acquired address of R1, we'll take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=19.528) [look at that in a moment, we do get a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=23.210352941176467) [response from that device. If I go open](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=26.15152941176469) [PuTTY now, I do have the rollover cable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=28.59115789473685) [plugged in to router 1 this time. So we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=31.117473684210548) [open up PuTTY and log in here. If I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=34.17415384615384) [show ip int bri, we'll see that 203. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=38.82799999999996) [113. 92 has been assigned to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=42.63569230769224) [FastEthernet0/1. We can see what mask is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=45.38682352941177) [applied to that by doing show int f0/1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=49.09270588235296) [And here we'll see that it has the 29-bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=53.328) [mask. This also shows up in the routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=56.328000000000024) [table. Show ip route will show us that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=58.99466666666671) [203. 0. 113. 0/29 actually what this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=63.46436363636366) [saying is that the class C address 203. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=68.1916363636364) [113. 0 has a /29 mask, and the network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=73.12800000000001) [that we received here for that on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=76.72800000000007) [interface is 203. 0. 113. 88/29. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=79.92800000000011) [move on and configure our port address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=82.79466666666667) [translation. So I'll move into config](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=86.06133333333335) [mode. And here want I want to do is I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=88.86133333333336) [going to add a NAT rule, and the NAT rule](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=91.05876923076924) [is going to be a static NAT rule, so it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=92.98184615384618) [ip nat inside source, and we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=95.6137142857143) [say static here. And then if I hit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=99.04228571428574) [question mark, it's going to say, well,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=101.19756521739133) [what are we going to do here with the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=102.41495652173919) [static translation? Since we're only doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=103.98017391304357) [this port forwarding, we're going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=105.92800000000003) [TCP as our protocol. It wants to know the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=108.72800000000007) [inside local IP address now, and that is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=112.2327619047619) [the actual IP address of our web server.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=115.28038095238094) [It then wants to know what is the local](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=118.328) [port, what's the inside port number? And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=121.32799999999996) [we're going to use port 80. Then if we hit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=123.51847619047619) [question mark, it's going to ask either](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=125.42323809523809) [for the inside global address, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=126.75657142857142) [our public address, or we can specify an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=129.17415384615384) [interface. If we specify the interface,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=132.86646153846146) [what we'll do here is we'll allow the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=135.2327619047619) [router to adjust the NAT rule should that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=138.28038095238094) [dynamic address that's currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=141.328) [configured on FastEthernet0/1 change. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=144.328) [if our ISP decides to give us a different](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=147.66133333333335) [IP address for our outside interface, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=150.66133333333343) [can just simply use the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=152.99466666666683) [FastEthernet0/1 here as the outside IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=155.21688888888892) [address or the global IP address for our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=157.88355555555566) [inside server. And then it'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=161.43911111111132) [automatically change as that outside](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=163.828) [address changes. The last thing we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=166.328) [do is tell it what port number to use on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=168.69163636363632) [our outside interface, and that's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=170.96436363636352) [be port 80. That should be enough so I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=172.66133333333335) [get access to the web server via my public](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=175.99466666666677) [address. So if I open up my Chrome](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=178.99466666666686) [browser, and we'll do a Ctrl+Shift+N to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=181.6613333333334) [get an incognito window, and we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=183.9946666666668) [to browse to 203. 0. 113. 92, which is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=186.6916363636364) [IP address of the outside interface of my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=191.23709090909108) [router. And hopefully here we'll get the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=194.87345454545482) [website at 10. 0. 80. 80. So this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=197.7985882352941) [outstanding news. This means that my port address translation rule is working.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=2&mode=live&start=201.50447058823522)

### [Demo: Creating and Testing the Access Control List](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live)

[The second thing we're going to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=0) [create that access control list. And I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=2.446222222222222) [not apply the access control list at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=4.502) [same exact time that I applied the NAT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=6.502) [rule because if I did those at the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=8.706545454545454) [time and it didn't work, I would have no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=11.570181818181819) [idea which one was broken. So when I do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=14.433818181818184) [this, I'm first going to test to make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=16.6567619047619) [that my port address translation is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=18.799619047619036) [working. Once I get that working, now I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=20.418666666666663) [can go on to router 2 and create and apply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=23.08533333333332) [the access control list. So let's close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=26.418666666666642) [our web browsers here. We're going to save](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=28.96252631578947) [the config on router 1. So we'll do a copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=31.9098947368421) [run start. And then I'm going to move my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=35.50200000000001) [rollover cable over to router 2. We'll log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=38.65200000000002) [in here. And now we're going to create](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=41.352) [that access control list we talked about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=43.751999999999974) [when we were looking at the slides. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=45.851999999999954) [I'll move into config mode. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=48.41866666666668) [create that ip access-list extended, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=51.08533333333337) [we call it WebFilter. Then that rule, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=53.13295238095238) [rules that we have on it, were permit tcp](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=56.18057142857142) [with a source address of anything. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=59.609142857142835) [don't care about the source port number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=62.002) [because that will be ephemeral. Our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=64.1895) [destination address is just one single](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=66.10199999999999) [device, 10. 0. 80. 80, and it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=68.20199999999996) [have a destination port number of 80. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=71.3519999999999) [second rule here is going to be deny ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=74.35200000000002) [any any. Now we just created the access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=77.95200000000007) [control list, but it's not applied](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=80.59815384615383) [anywhere. So when we configure the access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=82.44430769230767) [control list when we apply it, what we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=84.50200000000002) [need to do is we need to go on to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=86.8353333333334) [sub-interface. So we're going to go to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=90.202) [sub-interface where we want this applied,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=93.80200000000002) [which is int f0/1. 80. And we'll apply](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=96.50200000000004) [that. We want to apply that in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=99.65199999999999) [outbound direction so that we're filtering](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=102.05199999999996) [traffic as it leaves FastEthernet0/1. 80.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=103.85199999999995) [So we say ip access-group WebFilter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=107.45200000000001) [outbound. We'll exit out of here. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=112.85200000000005) [save our config. And then we can do one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=116.22258823529408) [more test. Let's open up our web browser](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=119.92847058823521) [again. We'll do a Ctrl+Shift+N so we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=122.75199999999997) [get that incognito window. And we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=125.4186666666666) [browse to 203. 0. 113. 92. And hopefully](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=127.64088888888888) [we'll be able to get to the website. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=131.19644444444452) [can still get to that website via our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=135.0186666666667) [NATed address on the outside interface.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=137.15200000000013) [This is outstanding. This is exactly what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=138.752) [we've been expecting. I would like to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=142.252) [verify one other thing though. What I'd](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=144.51390476190483) [like to verify is that I can reach that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=145.84723809523825) [website from my internal devices. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=147.5615238095241) [what I also want to test is to make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=149.3883636363637) [that I can't do other things to my device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=152.1156363636365) [at 10. 0. 80. 80 like ping it because a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=154.58533333333332) [ping message should get denied. But right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=157.36311111111104) [now since I'm doing port forwarding on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=159.35200000000003) [outside interface, I won't be able to ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=161.75200000000012) [because I'm only allowing TCP port 80,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=164.1520000000002) [ICMP does not use TCP. ICMP is a layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=167.5645) [protocol. So we're not going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=173.1895) [allowing ICMP through our router via that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=175.75200000000007) [NAT process. So let's move my workstation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=178.08533333333347) [back to the switch 2960-2. So I do have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=180.50199999999998) [that workstation plugged in to my 2960-2,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=183.65199999999993) [so let's change our IP address now. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=186.33533333333335) [have to change back to the VLAN 20](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=191.0020000000001) [network, which is 10. 0. 20. 10. And our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=195.66866666666684) [default gateway here is 10. 0. 20. 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=201.002) [We'll hit OK. Close these windows. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=206.002) [close everything out here. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=210.252) [make sure we can ping, so say ping 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=213.752) [20. 1. We can get to that. Let's see if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=218.752) [can ping 8. 8. 8. 8, which is out on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=221.5519999999999) [internet, that's the Google DNS server](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=223.75199999999978) [where NAT is still working on our router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=225.16866666666667) [1. That's great! Let's see if we can ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=228.50199999999992) [10. 0. 80. 80. If our ACL is configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=231.96252631578955) [correctly, this should fail. And we do get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=235.27831578947385) [a message from our router saying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=238.18057142857145) [Destination network is unreachable. If you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=240.32342857142862) [were to capture this in Wireshark, you'd](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=242.34023529411763) [find out that that destination network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=244.39905882352932) [unreachable message actually is saying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=246.1637647058822) [that there is a filter applied to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=247.84290909090913) [network, and that is not allowing us to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=250.75200000000012) [pass the traffic. If you want to learn](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=253.66109090909112) [more about that, I have a course on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=256.4186666666667) [troubleshooting with Wireshark called](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=259.0853333333332) [Fundamental Protocol Analysis. In there we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=260.41866666666647) [go through a deep dive of how all the ICMP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=262.25200000000007) [messages work, and we examine it in detail](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=265.2520000000002) [in Wireshark. The one thing we have left](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=267.4443076923077) [to test on our ACL now is to see if we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=269.2904615384615) [get to that website from our inside](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=272.0596923076922) [network now. So I'll do a Ctrl+Shift+N to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=274.502) [do that incognito window, and I'll browse](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=278.002) [now to 10. 0. 80. 80. Since I'm in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=280.53460869565214) [inside network, I won't be able to browse](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=283.1433043478259) [to the 203. 0. 113. 92 address because NAT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=285.2302608695649) [doesn't work like that. NAT only works](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=288.20200000000017) [when I'm coming from the outside interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=290.6520000000003) [in using that public IP address. When I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=293.052) [inside the network, I have to use my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=295.4520000000001) [private IP address. And it looks like my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=297.8520000000002) [ACL is configured correctly because I am](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=300.3309473684211) [able to get to the web server. I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=302.54147368421064) [verify that one other way. If I open up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=305.447652173913) [PuTTY, and this time I can actually close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=308.57808695652153) [out my session here to router 2. I want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=311.36069565217355) [SSH into router 2 now just to verify that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=314.6467368421053) [SSH is working yet. So we can SSH 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=317.4888421052633) [20. 1 or 10. 0. 99. 2. Both of those will](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=321.752) [work. I'll log in as ross. And what we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=327.252) [do is issue the command show access-lists,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=332.66109090909106) [and what that'll do is it'll show me my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=336.479272727273) [access lists, and it'll show me the number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=340.53460869565214) [of times that the access list rule had a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=342.62156521739115) [match on my first line here. And it'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=344.96939130434754) [tell me the number of times my access](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=347.21033333333344) [control list had a match on the deny ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=349.5436666666669) [any any. So this is evidence that my ACL](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=352.1686666666671) [is working correctly. If I try to send](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=355.55199999999985) [another ping message here to 10. 0. 80.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=358.75199999999967) [80, and I go back and look here, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=361.84290909090913) [should've seen these matches increase by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=365.1156363636365) [at least 4 messages. So we'd actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=367.29745454545474) [increase by 8 messages. So we can see our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=370.03771428571434) [ACL in action here on our router by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=373.89485714285735) [issuing that show access-lists command.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=377.3234285714289) [Let's wrap up this module so we can move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=378.704380952381) [on to the next section where we do some troubleshooting with our network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=3&mode=live&start=380.84723809523814)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live)

[So to wrap this up, we added port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=0) [forwarding Network Address Translation for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=3.1524444444444444) [internet access to our web server at 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=5.1227222222222215) [0. 80. 80. And then we tested that from a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=7.926333333333333) [device out on the internet. Additionally,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=10.704111111111118) [we added the access control list to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=12.537444444444445) [protect our web server on FastEthernet0/1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=15.648555555555557) [80 on router 2. We applied that ACL in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=18.315222222222214) [outbound direction. And then we tested](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=21.593) [that ACL by trying to browse to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=23.093) [website from the internet, as well as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=25.093) [going on the inside of our network and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=27.426333333333325) [trying to browse to that website from an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=30.092999999999982) [inside device. Additionally, we tried to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=32.61931578947369) [ping our web server and found out that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=34.19826315789474) [ping messages are not allowed through our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=36.30352631578948) [access control list and, therefore,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=38.91118181818182) [they're denied. I hope you enjoyed this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=41.18390909090908) [module. Let's go on to the next one where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=43.28347619047621) [we do some troubleshooting of our network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=45.426333333333375) [I'm going to break some stuff, and then we're going to fix it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m5&clip=4&mode=live&start=47.093)

## [Troubleshooting Our Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=0) [This next module we're going to do some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=2.6000000000000005) [troubleshooting. What I've done is I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=6.066666666666669) [created some bad config files for each of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=8.375) [the devices, and I've uploaded those to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=11.375) [the download section of this module. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=14) [you are interested, you can set this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=16.666666666666668) [network up yourself. You can load on all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=18.999999999999993) [the bad configuration files that I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=21.190476190476186) [put in that downloads folder and then do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=22.857142857142847) [your own troubleshooting of this network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=24.761904761904745) [until you figure out what's wrong. Should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=27.272727272727266) [you get stuck or want to know how to solve](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=30.210526315789473) [the issues that I've created in that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=32.3157894736842) [network, were you can come back and watch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=33.789473684210506) [the video, and I'll step you through each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=35.99999999999999) [device and show you how I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=38.28571428571427) [troubleshooting and solving the problems](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=40) [based on the complaints users are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=42.08333333333332) [experiencing. The goals for this module](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=44.58333333333331) [are really to just do some troubleshooting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=46.190476190476204) [of network issues that I have created for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=47.85714285714289) [you. In that downloads section, I have put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=49.761904761904816) [both the broken config files and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=52.79999999999999) [correct config files for each device. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=55.59999999999998) [if you want to play the game and do some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=58.22727272727273) [troubleshooting on your own here, you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=60.49999999999999) [might have some fun with this by putting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=61.86363636363635) [all those bad configuration files on your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=64.16666666666666) [devices and trying to do some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=66.88888888888886) [troubleshooting on your own. Come back](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=69.22222222222217) [here, and I'll show you how I solved each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=71) [of the problems. Hopefully you'll learn](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=73.25) [something about how to walk through and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=74.99999999999999) [solve network issues in a data network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=77.33333333333329) [system like we have here for our lab network. Let's get started.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=0&mode=live&start=79.66666666666659)

### [Demo: Troubleshooting SSH Issues on a Switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live)

[Once again, here's the network that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=1.363) [using. This is the same network that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=3.696333333333334) [had all along. And what we have right now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=6.362999999999999) [is we have a user complaining, the user](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=8.726636363636363) [that is at workstation 10. 0. 20. 10. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=10.544818181818176) [user's complaining that they're having](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=12.8005) [slow access to resources internally, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=14.988) [they're unable to reach the internet.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=17.613) [Let's move on to that device on VLAN 20](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=20.063000000000002) [and start our troubleshooting and see what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=23.213000000000015) [is wrong with our network that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=25.663000000000025) [preventing our traffic from flowing. While](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=28.077285714285708) [we're working through this, I highly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=30.64871428571427) [recommend having this drawing right next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=32.81754545454545) [to you so that we can consult it as we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=34.18118181818181) [need to to figure out what might be broken](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=36.45390909090908) [in our network. Let's go troubleshoot that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=39.238) [slowness complaint that our user at 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=42.24535294117646) [20. 10 is complaining about. So I'm going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=46.01005882352939) [to open up a command prompt. The issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=49.220142857142854) [here again is that our user is complaining](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=51.50585714285713) [about some slowness accessing network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=53.79157142857141) [resources. So we're going to see if we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=55.36300000000001) [figure out what is happening for our user](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=58.36300000000003) [here. Additionally, this user was saying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=60.889315789473685) [that they were unable to ping the internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=62.46826315789474) [and unable to access internet resources.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=64.57352631578947) [So we're going to look at that as well.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=66.36299999999999) [We'll start with the slowness issue. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=69.363) [one of the things we can look at with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=70.63572727272731) [slowness is we can SSH to our switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=72.27209090909099) [2960-2 and find out if there are any](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=74.463) [errors on the port F0/3, or possibly F0/3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=78.86299999999997) [was misconfigured. So I'm going to SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=83.26299999999995) [our switch there, which is at 10. 0. 97.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=86.93442857142858) [6. And we'll let that work. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=90.79157142857146) [something's not working. It doesn't look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=93.738) [like SSH is working to that switch right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=95.988) [now. Let's see if we can ping the switch's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=98.988) [IP address because if I can't SSH to it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=102.14560869565213) [that could be lots of things that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=105.27604347826077) [wrong. SSH is an application layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=107.90845454545453) [protocol, so what I can do is I can send a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=109.54481818181813) [ping message to 10. 0. 97. 6 to see if I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=112.54481818181806) [get a response. And then we'll be testing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=116.73142105263156) [network layer connectivity. So we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=120.09984210526312) [to skip over the transport layer test and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=122.0448181818182) [go right to the network layer test here by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=123.86300000000007) [doing a ping to 10. 0. 97. 6 to see if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=125.90845454545467) [get a result. And it appears that we are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=129.43992307692312) [not getting a response from that address.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=132.209153846154) [Well what I would do next then is see what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=134.363) [is it that I can ping on my network. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=137.5208947368422) [can't ping the switch that I'm connected](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=140.76299999999998) [to, what is it that I can ping on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=142.1629999999999) [network? Well if we're looking at this,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=144.16299999999978) [the switch that I'm connected to has that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=146.46299999999997) [IP address 10. 0. 97. 6, but my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=149.26299999999992) [workstation is on 10. 0. 20. 10, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=151.97169565217393) [means I have to send the traffic to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=154.40647826086968) [router before the router can forward it on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=157.14560869565238) [to the switch. So what I would do in this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=159.363) [case is see what is it that I can ping,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=161.863) [and I would start with my default gateway](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=164.363) [for the 10. 0. 20. 10 network. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=167.02966666666674) [ping that, 10. 0. 20. 10 or 20. 1 here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=170.31952173913044) [that's the default gateway for the 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=175.10213043478262) [20. 0/24 network. And here I do get a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=178.92821739130437) [response. So since I get a response from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=181.72663636363632) [my default gateway, this is really good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=183.54481818181807) [news. It means that my messages are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=185.1357272727271) [leaving my workstation and getting to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=187.48064705882348) [router and back again. The second thing I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=189.95123529411754) [would do now is see if I could ping the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=192.363) [very next address in my path to get to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=194.863) [network 10. 0. 97. 0/25, and that address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=197.113) [would be the default gateway for the VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=201.1546666666666) [97 network, which is at 10. 0. 97. 1. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=205.48799999999986) [is the default gateway for that network.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=210.72014285714286) [That IP address is on R2. So if I can ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=213.2201428571429) [that address, which I can, it tells me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=217.44633333333329) [that the layer 3 interface for VLAN 97 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=220.77966666666654) [functioning correctly. I can't ping the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=224.52966666666646) [switch, but I can ping its default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=226.58039130434787) [gateway. So what I would check on next now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=228.71082608695664) [is I would SSH to router 2 and see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=231.44995652173935) [router 2 has any information for me about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=234.46300000000008) [what could be wrong here. So we'll close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=236.86300000000017) [my PuTTY window that I had opened before,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=239.07728571428572) [and I'm going to create a new PuTTY window](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=240.98204761904765) [here. And we're going to SSH now to 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=243.12490476190482) [99. 2, which is router 2's layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=246.36300000000008) [address. And here we also have an SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=249.02966666666683) [error that says Server unexpectedly closed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=252.863) [the network connection. Now I've put these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=255.863) [SSH errors in here explicitly because this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=259.2577368421052) [is a common issue with newbies configuring](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=262.5735263157893) [devices. They make errors in the SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=265.8893157894734) [configuration. There're numerous steps to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=269.363) [get SSH configured. So it sometimes makes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=271.863) [sense that we have errors here when we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=274.3041764705883) [trying to do the configuration. So now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=276.18652941176487) [we're stuck a little bit. We have this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=278.0296666666666) [user that's complaining about slowness,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=280.69633333333314) [and I can't SSH to the router to check on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=282.3629999999997) [any router configuration, and I can SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=285.363) [the switch to check on any switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=287.363) [configuration. So what am I going to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=289.113) [now? Well, what I'm going to have to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=291.04300000000006) [actually get on to the console port of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=293.44300000000015) [those devices. Connecting to our devices](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=295.363) [with a rollover cable requires us to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=298.06299999999993) [within a few feet of the device that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=301.66299999999984) [configuring. Now when we're working on a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=305.59829411764713) [data network, this isn't always the case.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=308.48064705882376) [Usually we're sitting at a desk that is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=311.363) [many miles away or at least hundreds of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=314.0296666666665) [feet away from the device that we are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=316.69633333333303) [trying to access. It's the whole reason](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=319.18118181818176) [for putting SSH on devices so that we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=321.0902727272725) [access them remotely. So when we have this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=323.5448181818178) [occur when we have a device that we can't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=325.40466666666657) [SSH to, it often requires us to jump in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=327.2796666666664) [our car with our laptop and a rollover](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=329.15466666666623) [cable and actually sit right next to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=332.16299999999984) [device to plug into it. For now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=335.36299999999966) [fortunately my lab is literally a foot or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=337.9716956521739) [two away from my arm, so I can just plug](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=340.4064782608694) [my rollover cable right into my switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=343.4499565217388) [without any issues. So I've connected to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=346.02966666666674) [2960-2. I'm going to open up PuTTY, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=348.94633333333354) [we'll start with our 2960 and see if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=351.4934347826086) [can figure out what is wrong with our 2960](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=354.232565217391) [and why we can't SSH to it. So it looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=357.18652941176475) [like the switch is online. And our switch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=361.3041764705885) [was passing traffic for us because,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=364.31036842105266) [remember, I sent a ping message from the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=366.205105263158) [workstation at 10. 0. 20. 10 to my router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=368.73142105263173) [at 10. 0. 20. 1, as well as 10. 0. 97. 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=372.16299999999984) [So while I'm on my switch now, let's look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=376.96299999999957) [at a few things. First of all what I want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=380.56299999999936) [to see is is the interface VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=384.18652941176487) [configured? So if I do a show run int vlan](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=387.01005882352973) [97, it shows me that VLAN 97 is here. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=391.3630000000001) [has the correct address. And it looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=395.713) [the no shutdown command has been issued](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=398.5130000000002) [because we don't see the word shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=400.96300000000036) [underneath interface vlan97. If I did have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=403.59829411764713) [an interface shutdown, the config would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=406.48064705882376) [look like this. We'll do a show run int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=408.951235294118) [vlan 97. And now we actually have the word](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=413.93442857142844) [shutdown in our configuration. So we'll do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=419.07728571428544) [no shutdown on that interface. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=422.2760434782608) [what we can do is now that we know our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=424.4064782608694) [layer 3 interface for VLAN 97 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=427.4499565217388) [configured, we can go look at some other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=429.88680952380963) [things. Now, this log message that just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=432.9344285714289) [popped up here should be a good indicator](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=435.60109523809575) [to us of where the problem might be. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=438.07728571428567) [says here that interface vlan97 changed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=440.83358823529414) [state to down. Well why is interface VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=443.657117647059) [97 down? Well let's do a few other show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=447.42182352941217) [commands to verify this. If I do show int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=450.7977826086955) [vlan 97, and right now it doesn't look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=453.92821739130403) [like we have any errors on our interface.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=456.6487142857143) [If there were errors on our interface, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=458.9344285714285) [would see a number higher than 0 here for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=461.2201428571427) [runts, giants, or throttles, or a number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=464.61299999999994) [greater than 0 for output errors or input](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=467.76299999999986) [errors and so on. There is one interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=471.363) [reset. I'm not too concerned about one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=474.3103684210525) [interface reset setting up a situation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=476.8893157894734) [where the user would experience a slow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=479.1407777777778) [network. However, most of the information](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=481.8630000000002) [we need about our network is right here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=484.1963333333337) [because this interface is in a down state.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=487.2860769230768) [It is not in an up state. So we don't have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=490.363) [any errors. Our interface is down. And we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=494.2453529411767) [have to consider what would cause this.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=497.06300000000005) [One of the major things that causes an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=499.5130000000002) [interface VLAN to go down is that the VLAN](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=502.3130000000004) [is not in the VLAN database. So if I issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=505.449956521739) [the command show vlan, what we'll find out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=508.92821739130403) [is all the VLANs that are currently](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=511.6963333333333) [configured on this device. If I scroll up,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=514.0296666666669) [we can see that VLANs 20 and 80 and 99 and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=517.2091538461539) [600 are configured, but we do not have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=522.2860769230768) [VLAN 97. So if I do show int trunk, that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=526.4399230769229) [will show me my trunk links. And right now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=529.6029999999998) [we can see here as well that the VLANs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=532.1229999999996) [that are configured to be allowed on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=534.738) [trunk link are 20, 80, and 97. And the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=537.738) [VLANs that are actually active on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=541.0688823529413) [trunk link are only VLANs 20 and 80. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=543.5394705882355) [move into configure mode and add VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=546.8005) [to our configuration and see what happens.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=550.3005) [Once we add that VLAN, we should see a log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=553.363) [message telling us that interface VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=557.6487142857145) [changed state to up. Let's try doing a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=560.6487142857146) [show int vlan 97. It still says the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=563.963) [interface is down. Let's try sending a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=567.1629999999998) [ping message to our default gateway at 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=570.2296666666668) [0. 97. 1. That was messy. Let's try that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=573.9630000000004) [again. It looks like when I sent that ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=576.6261578947369) [message, it brought that interface VLAN 97](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=578.5208947368423) [back up. So, now I can ping my default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=580.6755) [gateway of the router. What I should be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=584.613) [able to do now is ping that device from my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=587.863) [PC here. So if I send a ping message now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=591.613) [to 10. 0. 97. 6, now I'm getting a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=594.7629999999997) [response from it. If I then go to my PuTTY](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=597.4629999999993) [session and open a new PuTTY session and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=601.2266363636362) [try SSHing to 10. 0. 97. 6, we should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=604.4993636363632) [hopefully get success here. We'll log in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=608.0902727272728) [as me. And now I am able to SSH now to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=610.6357272727274) [switch. So the issue here was that my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=614.9993636363639) [switch did not have VLAN 97 configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=617.5735263157892) [and, therefore, interface VLAN 97 wouldn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=619.7840526315783) [come up, which wouldn't allow us to SSH to the switch.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=1&mode=live&start=622.363)

### [Demo: Troubleshooting Slowness on the Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live)

[We have resolved that issue with SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=0) [the switch. Let's close my PuTTY window to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=3.4865454545454537) [the console port of the switch. And we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=6.97309090909091) [going to stick with this SSH session now.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=10.21957894736842) [Now the user was complaining that their](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=12.745894736842105) [connection to the network seemed to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=14.95642105263158) [slow, that they were getting slow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=16.97688888888889) [performance from the devices that they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=18.64355555555556) [were trying to connect to and that they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=20.310222222222233) [couldn't connect to the internet at all.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=23.088000000000005) [So what I would do here is after I am able](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=25.588) [to SSH to the switch, now I can finally](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=28.935826086956528) [investigate the problem that was](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=31.67495652173914) [occurring. So if I just look at interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=33.678909090909094) [FastEthernet0/3. I'm not going to look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=38.04254545454547) [the configuration. I'm going to do a show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=40.30228571428571) [interface directly, and that can show me a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=42.58799999999999) [lot of information about the configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=45.004666666666665) [and status of this interface. So first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=47.50466666666665) [off, if I was looking to see for slowness](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=50.25466666666667) [on this interface, I would definitely](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=53.254666666666694) [check to see what the errors were like or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=55.25466666666671) [if there were errors. And right now it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=57.54038095238095) [looks like there're a couple of errors](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=59.06419047619047) [here. We have some collisions and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=60.3975238095238) [interface reset. Looks like there were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=62.646823529411776) [some multicast messages, but that's not a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=65.11741176470589) [bad thing. What we're looking for here are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=68.0255) [input errors, CRC errors, or output](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=71.5255) [errors. And right now we don't see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=74.1505) [anything there. It's just these 18](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=76.838) [collisions, well big deal. If that number](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=79.088) [was much higher like 1000 collisions, then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=81.5255) [I might start scratching my head. Or if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=83.713) [that number of collisions was closer to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=86.15942857142858) [the number of packets that got sent in and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=88.15942857142862) [out of the interface, then also I would be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=90.73085714285725) [more concerned. But right now, 18](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=93.70564705882356) [collisions, that's no big deal. But the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=95.82329411764712) [thing we have to remember about collisions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=98.18799999999999) [is there's only one time that a collision](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=100.28799999999997) [is going to occur with a switch, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=102.68799999999995) [that's when that switch port is set to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=104.92133333333332) [half duplex. So if I scroll up in my show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=107.05466666666665) [interface output here, we will see right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=110.25466666666662) [here that the interface is currently set](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=112.58799999999992) [to half duplex, and it's set to 10 mbps.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=114.92133333333332) [So it looks like we may have manually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=117.92133333333328) [configured or changed the configuration on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=120.58799999999991) [this port to not auto-negotiate but to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=122.64682352941178) [forced to half duplex 10 MB, or it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=125.47035294117653) [auto-negotiated to half duplex 10 MB. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=128.34990476190475) [can easily see that by issuing the show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=131.0165714285714) [run int f0/3 command, and that will show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=134.06419047619045) [me what's currently configured there. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=136.85115789473687) [looks like speed 10 duplex half is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=138.7458947368422) [currently issued. So what we can do is go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=140.95642105263173) [on to int f0/3 and then do a speed auto.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=144.47035294117643) [When I do a speed auto, what's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=148.588) [happen here is it's going to renegotiate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=151.04254545454552) [my connection speed with my PC. And while](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=152.95163636363648) [it's doing that, I'm actually going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=155.388) [lose network connectivity to my switch.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=158.18800000000005) [And the reason I'm doing that is that I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=160.588) [actually taking switch port F0/3, I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=163.58800000000008) [bringing it down, and then I'm bringing it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=165.58800000000014) [back up again. Since I'm connected to that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=167.90378947368424) [port, I'm losing my connection here. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=170.00905263157904) [now I've kind of cut my arm off.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=172.0165714285714) [Something's up with my interface. We've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=175.44514285714274) [negotiated the speed to auto, and it shut](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=177.78799999999998) [that interface down for a second. Now I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=179.3879999999999) [finally back up and running. It looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=181.15942857142855) [that connection was restored. It took some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=183.44514285714277) [time, probably took about 30 seconds for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=185.2938823529412) [that port to come back up again. Well now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=186.94094117647072) [we need to do the same thing with our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=189.15942857142855) [duplex. We're going to say duplex auto,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=191.73085714285705) [and this will probably force the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=193.730857142857) [to go down and come back up again, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=195.78800000000004) [means we're going to wait about 30 seconds](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=198.48800000000014) [for that port to come back online. Once](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=200.9037894736842) [the interface is back online, we should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=203.43010526315797) [restore our SSH session, and that should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=205.6406315789475) [resolve the user's issues of complaining](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=208.06168421052635) [that the speed of their connection was too](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=210.2722105263159) [slow. So we're back online here. We can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=213.2195789473686) [SSH again. Let's do a show int f0/3 now,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=215.71843478260877) [and now it looks like we have negotiated](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=218.45756521739148) [full duplex at 100 mbps. This looks a lot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=220.97688888888888) [better. We should see our collisions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=224.47688888888885) [disappear now. Once of the ways we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=226.81022222222217) [verify that we don't have any more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=229.49709090909087) [collisions occurring on this link would be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=231.72436363636356) [to do a clear interface counters. Excuse](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=233.95163636363625) [me, it's clear counters. Let's figure out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=236.7755) [what's going on here. Clear counter](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=239.838) [fastEthernet 0/3. And what that will do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=242.63561904761903) [now is if I do show int f0/3 now, we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=246.30228571428566) [see that that number of collisions is now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=251.54038095238084) [0. So now we can come back later and take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=254.49709090909087) [a look at that interface and see if there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=257.67890909090903) [are any collisions occurring. We should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=260.29388235294124) [not see collisions occurring because that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=261.7056470588237) [link is full duplex. We only see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=263.1174117647061) [collisions occur when the link is half duplex.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=2&mode=live&start=268.588)

### [Demo: Troubleshooting SSH Issues on a Router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live)

[Let's move on to the next issue that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=0) [are experiencing, which was that we were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=3.187173913043478) [not able to SSH into router 2. So I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=5.666086956521739) [going to save my config here. We do still](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=8.666739130434781) [have an issue that this workstation is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=11.014565217391297) [unable to access the internet. But, first,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=12.840652173913032) [let's configure router 2. Let's figure out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=14.811666666666667) [what's wrong with router 2 so that we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=17.145) [SSH to it. So I'm going to have to once](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=20.14499999999999) [again get out the rollover cable and plug](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=22.971086956521734) [it into the console port of router 2. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=25.05804347826086) [let's do that, and we're going to open up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=27.372272727272726) [PuTTY and see if we can find out what's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=29.417727272727266) [wrong with our configuration or with SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=31.463181818181805) [in general. So our SSH configuration is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=33.922777777777775) [listed in a few spots in our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=37.033888888888875) [configurations on our devices. If I do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=40.145) [show run, that'll show me the entire](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=41.959117647058825) [config here. And let's just go through and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=43.546470588235294) [make sure we have all the stuff that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=45.5) [need. I do have the enable secret set, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=47.75) [that's really not related to SSH. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=49.79714285714283) [just going to let me get from user mode to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=51.47833333333334) [privilege mode. SSH will let me into user](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=54.811666666666696) [mode typically, and then I can move from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=57.47833333333338) [user mode to privilege mode as long as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=59.40815789473684) [there's an enable secret set. I do have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=61.09236842105262) [domain name set. I have a username set.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=63.40815789473685) [These are all things that I need. I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=65.9344736842105) [IP SSH version 2 set up. Our crypto key](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=68.57978260869565) [isn't going to show up here, but I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=70.5363043478261) [issue another command to see if the crypto](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=72.49282608695655) [key has been generated. So we'll do that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=74.64499999999998) [after we look at the running config. If I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=77.04499999999996) [keep scrolling down, the rest of the SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=80.08617647058823) [config is actually on our line vty. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=83.85088235294116) [right here on line vty 0 through 4, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=87.57357142857143) [says line vty 0 through 4, no login,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=91.4307142857143) [transport input telnet. Well what does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=94.85928571428575) [this mean? Well transport input telnet,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=97.0825) [we're definitely not going to allow SSH.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=98.9575) [And with that command, no login, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=101.145) [never going to ask the user for a password](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=104.00863636363634) [nor for a username and password. SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=107.6904545454545) [requires a username and a password.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=110.81166666666667) [Telnet, unfortunately, doesn't require](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=114.8116666666667) [either. So what I can actually do here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=117.47833333333338) [with this command on here is I can Telnet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=120.4783333333333) [to the router without inputting a username](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=123.47833333333325) [or a password. Let's give it a try. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=126.045) [I'll connect to Telnet here, 10. 0. 99. 2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=130.09499999999997) [That's the IP address of router 2, the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=134.145) [loopback interface. And look at that. Once](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=137.57357142857134) [I type Telnet and the IP address of that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=140.46078947368423) [router, I've built an unencrypted session](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=143.3028947368422) [to router 2. And now I'm in user mode.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=145.19763157894752) [Can't do a whole lot in user mode. I can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=148.24499999999998) [do show ip route. I can do a few other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=151.74499999999992) [show commands. But here I'm able to get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=154.97108695652182) [access to my device unencrypted and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=157.40586956521756) [without a password. This is bad. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=159.23195652173936) [bad, bad, bad! We should never ever, ever](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=161.81166666666672) [do this. So I'm going to exit out of my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=164.47833333333347) [Telnet session there, and let's fix this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=166.645) [up. Earlier I said there's a command we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=167.9575) [can issue to see if the crypto key was](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=170.4783333333334) [generated, and that command is show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=173.4783333333335) [crypto. If we hit a question mark,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=175.42277777777778) [there're a whole bunch of commands we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=177.36722222222218) [use here. We want to do show crypto key,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=179.58944444444435) [and then we want to do mypubkey, my public](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=182.88413043478266) [key, and then rsa, and that should be all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=186.4058695652175) [we need here. And there is our crypto key](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=189.71642857142857) [that we've generated. So we do have a key](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=192.28785714285706) [that we can use for SSH encryption. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=195.54500000000004) [just don't have it configured correctly.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=198.7450000000001) [So what we can do is go to line vty 0](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=201.145) [through 4. We can say login local to allow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=204.81166666666678) [for the local username and password](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=207.81166666666687) [database to get activated. Then we say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=209.8116666666667) [transport input ssh. That will disable](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=212.1450000000001) [Telnet and enable SSH. If I do copy run](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=214.37227272727273) [start, now we can try to SSH to our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=218.0540909090909) [device. While that's saving, I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=221.73590909090905) [open up another PuTTY session here. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=224.07249999999996) [click on SSH 10. 0. 99. 2. Now we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=226.46113636363637) [getting a login prompt, and now we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=230.6113636363637) [being asked to put in usernames and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=233.8393181818183) [passwords to get into our router to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=236.87227272727276) [configuration. So I'm going to close out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=239.78136363636375) [of these two windows here, and we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=241.94500000000008) [begin troubleshooting the next part here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=244.34500000000017) [which is internet access from our device 10. 0. 20. 10 out to the internet.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=3&mode=live&start=246.145)

### [Demo: Troubleshooting the Internet Connection](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live)

[Next, let's go troubleshoot this internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=0) [connection where the user's complaining](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=2.69925) [that the internet is not working as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=4.948625000000002) [expected. So I'm on workstation 10. 0. 20.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=9.198) [10 again. We did resolve the slowness](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=12.647999999999998) [issue that the user was complaining about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=15.097999999999995) [by fixing that port and the speed and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=17.448) [duplex settings there. The next thing we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=19.448) [want to do is find out what's up with the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=20.997999999999998) [internet. So let me try to ping Google's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=22.99799999999999) [DNS server at 8. 8. 8. 8. And I'm getting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=25.621076923076927) [a message here that 10. 0. 0. 1 is saying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=29.082615384615394) [that the time to live has expired in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=32.41539130434783) [transit. The TTL is the time to live here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=34.15452173913045) [and it expired in transit. And whenever we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=36.1110434782609) [get this message, TTL expired in transit,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=38.323) [it means one of two things. It means](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=40.948) [either that the device on the internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=43.829578947368425) [that we're trying to reach is too many](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=46.04010526315791) [hops away, meaning that it's causing the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=48.56642105263161) [time to live value in our message, in our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=51.04010526315791) [packet header to expire before it gets](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=54.35589473684215) [there. Now in a Windows machine, our time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=56.83436363636364) [to live is 128, so we can go through 128](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=59.3798181818182) [routers before we just throw that packet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=62.5616363636364) [away. And what that means here is that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=64.698) [packet is going through 128 routers, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=67.39799999999997) [then it's getting thrown away, and that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=69.46466666666666) [exactly what TTL expired in transit means.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=71.33133333333332) [This is a strong indicator of a routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=73.198) [loop. A routing loop means that we say,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=77.198) [Hey, to go to this network, go that way.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=81.198) [And then the next device that it gets to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=84.60709090909091) [says, Hey, to get to the network that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=85.83436363636368) [you're trying to get to, go back the other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=86.9252727272728) [way that you just came from. And then the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=89.10709090909086) [packet just bounces back and forth between](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=91.56163636363625) [two routers. So here we're getting the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=93.53133333333332) [message back from 10. 0. 0. 1. If we look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=95.86466666666662) [at our drawing, here's where drawings](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=99.08035294117647) [become incredibly valuable because now we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=100.84505882352943) [know exactly where the issue is. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=102.60976470588238) [router 1 is reporting that this message is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=105.3855) [expiring in transit. Well we can identify](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=108.8855) [even more closely the routing loop by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=112.06466666666667) [using the traceroute command. So we'll use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=115.33133333333335) [tracert. There's a clever video out on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=117.91228571428572) [internet if I have not mentioned it yet by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=119.81704761904764) [this kid named HaxOr, and he makes this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=121.95990476190481) [really wild crazy completely inaccurate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=125.46466666666667) [video about tracert, but it's very, very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=127.79800000000002) [funny. I recommend going and checking it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=130.53133333333338) [out. We'll do a traceroute here to 8. 8.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=132.86466666666678) [8. 8 and see what happens. And I forgot to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=135.53133333333327) [put that -d command in here first, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=138.44799999999984) [means that that traceroute command is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=140.8646666666667) [going to work ridiculously slow without](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=142.86466666666675) [it. That -d what it does is it prevents](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=144.8646666666668) [traceroute from doing a reverse DNS lookup](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=147.99799999999996) [trying to find out what hostname is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=150.44799999999992) [affiliated with the IP address that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=152.99800000000002) [tracerouting. So we'll do this. It'll go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=155.79800000000006) [much faster now. So here we go. Here's our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=157.60976470588244) [broken traceroute. We have it going from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=159.7274117647061) [10. 0. 20. 1, which is router 2. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=161.86466666666672) [it goes up to router 1. And then it comes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=165.19800000000015) [back to router 2. And then it goes back to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=167.948) [router 1. And then it goes to router 2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=169.823) [And then router 1 and router 2 and router](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=171.073) [1 and router 2, and it's going to do this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=172.198) [128 times for every single message. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=174.0215294117647) [then it's going to throw the message away.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=176.90388235294114) [So our traceroute here is only going to go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=180.198) [up to 30, and then it's going to stop](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=182.448) [working entirely. But that's enough](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=184.698) [information for us to look and see where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=186.1355) [our routing loop is occurring. We'll start](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=188.6355) [with SSHing to router 2. And we'll SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=190.81338461538465) [router 2. We're going to take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=193.58261538461554) [the routing table there, 10. 0. 99. 2.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=196.99800000000005) [We'll log in here. And we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=200.198) [issue the show ip route command. Anytime](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=203.62657142857134) [we're having issues that appear to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=206.5868888888889) [routing related, we want to look at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=209.3091111111111) [routing table. How do I know this is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=212.42022222222218) [routing related? Well my ping message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=214.28890909090913) [didn't get to the internet, and it had a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=215.37981818181825) [TTL expired in transmit, meaning that,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=217.01618181818193) [like I said, we had a routing loop. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=219.12107692307694) [it's a routing loop, it's most likely an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=222.4646666666667) [issue related to the routing table. Well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=224.59800000000013) [right here if we look, it looks like we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=226.4707272727273) [have a default route, and the gateway of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=228.9252727272728) [last resort or the next hop is device 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=231.10709090909106) [0. 0. 1. Now if you remember back when we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=234.01618181818188) [had this correctly configured, and we were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=237.65254545454562) [able to get from our device at 10. 0. 20.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=240.198) [10 out to the internet, I do remember](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=243.53133333333344) [doing a traceroute, and the traceroute](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=246.19800000000018) [said that we went through router 3 first,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=248.08035294117644) [then we went to router 1. And if we look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=250.43329411764694) [at the drawing, once again the value of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=253.34085714285712) [the drawing is going to be very apparent](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=255.62657142857134) [here. If we look at our drawing, that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=257.9122857142856) [makes sense because it means that we took](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=259.2479999999998) [the Fast Ethernet connection from router 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=260.44799999999964) [to router 3, and then we took the Fast](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=261.8343636363636) [Ethernet connection from router 3 to 3560,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=264.6979999999999) [then to router 1, then out to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=266.9252727272726) [internet. Those were all using 100 MB](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=269.47072727272723) [connections all the way from our PC all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=271.6979999999999) [the way out to the internet. If our route,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=274.2434545454544) [our default route here, points that it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=277.19799999999987) [going across the serial link, which it is,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=279.53133333333307) [the exit interface here is Serial0/0/0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=282.30326315789466) [Since we're going across that serial link](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=284.513789473684) [to get out to the internet, chances are it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=287.09273684210496) [means something is really wonky with our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=290.31564705882363) [routing tables right now. So there might](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=292.7862352941179) [be multiple issues occurring. So we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=295.1979999999999) [going to just troubleshoot one issue at a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=297.1979999999998) [time. And right here from this routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=299.8646666666663) [table, it does not appear that this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=302.2980000000001) [routing table is causing the routing loop.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=304.7480000000003) [Why do I say that? Well I say that because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=307.198) [it just, from examining the routing table](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=310.6980000000002) [and examining my drawing, the default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=313.14800000000037) [route must point towards R1 at some point](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=315.58261538461534) [in time. So whether that default route](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=319.27492307692296) [points to R3, then the 3560, then R1, or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=322.3408571428572) [it just goes across the serial link,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=326.1980000000002) [either case here our default route is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=329.198) [pointing to the router that's connected to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=331.823) [the internet. What I need to do next is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=334.448) [SSH to R1. So here we'll put in 10. 0. 99.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=337.93713043478243) [1, and we'll log in. So here if we do show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=342.24147826086914) [ip route, let's take a look at what we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=346.073) [have. And what we have here is a very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=348.8855) [common error that occurs when we are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=351.30326315789455) [setting up static routes. If you look, my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=353.1453684210523) [gateway of last resort is set to 203. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=355.9371304347825) [113. 93, which is not the correct next hop](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=359.85017391304314) [address for the internet. And then if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=363.7632173913038) [look down at the static routes that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=366.29800000000006) [configured here, there are one, two,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=368.69800000000015) [three, four, five, six different next hops](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=370.6265714285714) [to get out to the internet. Well one of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=373.62657142857154) [these is incorrect. Actually, five of them](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=377.14536842105264) [are incorrect, and only one of them is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=379.3558947368422) [correct. And the reason I say this is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=381.88221052631593) [very common problem when people are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=385.3979999999998) [learning how to configure static routes,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=387.79799999999966) [we have six default routes here, and we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=390.198) [really can't have six default routes. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=393.62657142857154) [can only have one default route because](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=396.58261538461534) [there's only one default route. There's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=399.27492307692285) [only one route we can take when there's no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=401.48371428571426) [other place to go. So we're going to have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=404.05514285714276) [to get rid of the static routes here that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=406.6685882352942) [we don't want. When newbies are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=409.31564705882374) [configuring static routes, oftentimes they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=411.2568235294118) [will type the static route in the command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=413.02152941176485) [line, then they'll do a lookup in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=415.8450588235297) [routing table, and maybe the route doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=417.5979999999999) [show up in the routing table. So then the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=418.9979999999998) [student will go back and configure another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=420.8798181818182) [static route to try to get it to pop into](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=422.47072727272746) [the routing table, which also doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=424.74345454545494) [work. And then they try another one and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=426.198) [another one and another one only to find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=428.198) [out that they didn't have any of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=430.198) [interfaces they've configured plugged in,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=432.8646666666665) [so all the interfaces were down, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=434.53133333333307) [means that there'll be no routing table](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=436.8295789473684) [with all the interfaces down, which means](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=439.04010526315795) [that the static route also doesn't get](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=441.2506315789475) [added to the table. And then what happens](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=443.0401052631579) [is that when the student realizes that,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=444.72431578947374) [they plug in the device, but now it adds](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=446.198) [all of the static routes that it can reach](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=448.54582608695637) [to the routing table all at once, and we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=450.89365217391276) [get this situation. If I do a show run,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=453.589304347826) [we're going to find out that there are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=456.7197391304345) [many static default routes configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=459.5023478260865) [here. There are six of them. And only one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=461.1355) [of them is correct. So we're going to have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=463.948) [to look at which one is the correct one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=466.448) [and then delete all of the other ones that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=468.698) [we do not need. So there's a real easy way](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=470.948) [to do this. I'm going to select the routes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=473.54582608695637) [that I want to delete. Now the correct](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=475.89365217391276) [route here is the very first one. My next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=478.0551428571428) [hop to the internet is 203. 0. 113. 89. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=480.6265714285713) [what I'll do is I'll select the routes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=483.47072727272723) [that are bad. I'm going to go to Notepad,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=485.65254545454525) [and we're going to paste those routes in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=488.1070909090905) [there. And we're going to add the word no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=490.9757777777778) [in front of each one. If you have a lot of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=494.9757777777779) [these, you can use the find and replace](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=498.962705882353) [feature in Notepad. But since there're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=501.31564705882374) [only five of them here, I'm just going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=502.99799999999993) [do it manually. We'll select them, copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=505.3979999999998) [them, and we'll go back to our router 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=507.288909090909) [I'm going to config t, and I'm just going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=509.74345454545426) [to paste those. And then we'll do a copy](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=512.198) [run start to save the configuration file.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=515.573) [So now that that's saved, let's issue the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=518.198) [show ip route command and see if that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=520.303263157895) [changed anything here. Now we do have our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=522.40852631579) [correct gateway of last resort listed up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=524.6265714285717) [on top. We only have one static default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=526.626571428572) [route to the internet. That looks much,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=529.5979999999998) [much better. Let's go back to our PC now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=532.3979999999997) [and see if we can ping to 8. 8. 8. 8. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=534.7535555555552) [I'm going to just open up that command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=537.4202222222212) [prompt here, send the ping message to 8.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=539.198) [8. 8. 8 and see what happens. And it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=542.9313333333336) [appears that once again, we are not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=546.9122857142858) [getting connectivity for some reason. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=549.412285714286) [we have two requests timed out. Typically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=551.5137894736841) [if we're not getting a reply by now,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=553.7243157894733) [something is broken on our network. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=556.2506315789466) [let's go and look at what else could be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=558.6265714285715) [broken. We're going to go back and look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=561.8408571428575) [routing tables once again for our devices.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=564.3313333333332) [Where we start to look at the routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=566.198) [tables here is not super important, so we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=568.198) [can look pretty much anywhere we want. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=570.198) [looks like the static route to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=572.3979999999998) [internet here, like we just took a look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=574.4979999999995) [at, is correct on router 1. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=576.8979999999991) [double-check on router 2 now and make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=579.1980000000002) [that on router 2 that by us changing our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=581.8646666666672) [default route to the internet that it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=584.6265714285713) [didn't affect anything on R2. So I'll do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=586.126571428571) [show ip route here, and here it does look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=588.4837142857143) [like the default route is still pointing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=592.3408571428573) [out Serial0/0/0. This is not ideal at this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=595.3408571428574) [point, but once again, we're not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=598.092736842105) [troubleshooting speed issues of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=599.9874736842099) [internet at this point. We are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=601.5664210526307) [troubleshooting basic connectivity to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=603.7979999999999) [internet. So right now it appears that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=605.7979999999998) [this device has a route to the internet.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=608.3408571428573) [If I try on router 2 to ping 8. 8. 8. 8,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=611.198) [we are also not getting a response here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=615.9979999999997) [So what we should do next is move to R1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=619.198) [So we'll go to R1 since that's the device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=622.676260869565) [connected to the internet. We now on R1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=625.8066956521735) [can see if we can ping 8. 8. 8. 8. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=628.4611578947366) [here we get success. Well that's a head](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=631.9348421052624) [scratcher, isn't it? Or is it? Router 1 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=634.3744705882351) [connected to the internet. We are doing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=637.0215294117642) [Network Address Translation here. And when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=639.1453684210525) [we have this issue where devices on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=641.0401052631574) [inside of our network are unable to ping](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=643.5664210526307) [the internet, but the router that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=646.092736842105) [connected to the internet, R1 in this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=647.9874736842099) [case, can ping the internet, usually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=650.198) [that's an indication that NAT isn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=652.7694285714286) [configured correctly. So what I can do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=655.3408571428573) [issue the ping command again to 8. 8. 8.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=657.912285714286) [8, and when we ping 8. 8. 8. 8, what it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=660.483714285715) [going to do is it's going to use a source](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=663.6265714285727) [address of the exit interface of that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=667.198) [message. So in this case, it's going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=669.823) [use the source address that's configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=672.823) [on F0/1, which is on the 203. 0. 113. 88](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=675.073) [network. So that ping message that we just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=678.823) [sent and got success for had a source](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=681.1980000000003) [address of a public IP address. So of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=683.483714285715) [course we're going to get a response from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=685.7434545454545) [it. If we change our source address to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=687.9252727272725) [an address that's on the inside of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=690.3798181818178) [network, like 10. 0. 0. 1, which is the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=692.998) [address of S0/0/0, we hit Enter here and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=696.5980000000002) [see if that allows us to get a result. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=699.4780000000003) [what we see is that when the source](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=702.118) [address of our packet is 10. 0. 0. 1, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=704.0380000000001) [do not get a response from the internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=706.5664210526315) [anymore. This is a very strong indication](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=709.513789473684) [that something is broken with Network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=712.092736842105) [Address Translation. The NAT statement](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=714.6097647058824) [that we have to issue to get port address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=716.9627058823531) [translation working on our router is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=721.198) [pretty long. If we do a show run, let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=723.1980000000002) [take a look at that command that sets up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=726.1980000000005) [NAT for us. So here is the command that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=728.9038823529412) [sets up NAT for us. And I explicitly put](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=731.0215294117648) [this command in here just like this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=733.5980000000001) [because the error is really, really hard](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=736.0480000000002) [to see. This command was accepted by the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=738.4980000000004) [router, and it added it to the routing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=740.531333333333) [configuration, and we're doing some kind](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=742.3091111111104) [of NAT here. The problem is that we did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=744.0980000000001) [not specify the keyword inside between NAT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=748.1480000000005) [and source. So see how our port address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=751.2980000000008) [translation rule is set up here. This](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=753.9627058823527) [one's set up correctly. The rule here set](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=756.0215294117642) [up for our overload does not have the word](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=758.589304347826) [inside in it, which means that we are not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=761.7197391304345) [going to be able to ping the internet from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=764.850173913043) [our inside devices. Let's move to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=768.1453684210525) [configuration mode and fix that. The first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=770.3558947368418) [thing that I want to do is issue the no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=772.698) [command to get rid of that translation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=775.198) [rule. Since it's already selected, I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=776.948) [just going to right-click to paste it, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=778.6979999999998) [that will get rid of that NAT translation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=781.0979999999994) [rule. The next thing I want to do is add](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=783.448) [in the correct translation rule. So that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=785.948) [ip nat inside source list 1 int f0/1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=788.3408571428571) [overload. We can quickly check to see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=792.9122857142855) [that config was entered correctly. There's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=797.483714285714) [a shortcut way to get right to the NAT](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=800.5826153846153) [configuration. And if we do a show run and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=804.7364615384614) [include | i ip nat inside source, so what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=808.3979999999998) [we're doing here is we're doing a pipe,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=811.9979999999996) [and the pipe which is the key that's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=815.198) [Shift key above Enter, what that'll do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=817.2434545454547) [it'll allow us to run another command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=819.0616363636367) [afterward. This is kind of like grep on a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=820.9672307692307) [Linux machine. Here the i that I entered](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=824.4287692307689) [here is saying include only text that has](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=827.5313333333335) [ip nat inside source. So I hit Enter here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=830.6424444444448) [It's going to go through the running](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=832.9122857142855) [config and pull out only the lines that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=833.9122857142853) [start with those keywords. And here is our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=835.0551428571422) [command ip nat inside source list 1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=838.903882352941) [interface FastEthernet0/1 overload. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=842.609764705882) [looks correct. Let's try our ping message.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=844.4360952380952) [So I'll just hit the up arrow a few times](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=846.1027619047615) [to get ping 8. 8. 8. 8 source 10. 0. 0. 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=848.4837142857133) [We hit Enter. Now we're getting success.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=852.0105) [Let's go down to our workstation. Let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=854.198) [see if we get success here--ping 8. 8. 8.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=856.4252727272731) [8, and we are getting success. This is outstanding news!](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=4&mode=live&start=859.2889090909099)

### [Demo: Troubleshooting Internet Connection Speed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live)

[Now that we can ping the internet, we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=0) [to attend to another issue. The bandwidth](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=3.2142857142857144) [of that serial link is only about 1. 544](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=5.75) [mbps, which means that it's a very slow](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=9.125) [link. It's almost 100 times slower than](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=12.125) [our Fast Ethernet links. So we want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=14.566526315789478) [avoid taking that serial link unless there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=17.321894736842108) [are no other options for us. So what that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=19.794) [means is that if we try to do a test to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=23.169) [the internet from R1, we should experience](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=27.294) [some pretty slow speeds. We might want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=30.11511111111111) [test that using speedtest. net. We'll open](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=33.428888888888885) [up an incognito window here and go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=36.42400000000001) [speedtest. net. Speedtest. net is just a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=40.12000000000003) [service that allows us to check how fast](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=42.710666666666675) [our work station has access to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=45.37733333333336) [internet. This website is loading](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=47.71066666666671) [extremely slow already, which tells me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=49.517684210526326) [that we're probably going over a wicked](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=51.72821052631582) [slow link. We'll click Begin Test, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=54.307157894736896) [we'll see what kind of results we get. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=57.351692307692296) [there's our indication. See how it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=61.32971428571428) [saying right now we're checking download](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=63.04399999999999) [speed. And the maximum download speed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=64.75828571428572) [we're getting here is 1. 49 mbps. So this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=67.12733333333335) [is a relatively slow connection to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=70.67557894736841) [internet. So now we're going to test the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=72.88610526315784) [upload speed. And here we're only seeing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=75.41242105263149) [an upload speed of about a meg and a half](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=77.08566666666664) [again, a little less than a meg and a half](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=79.16899999999993) [here, although it is going up. That](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=81.37733333333333) [average will keep going up as we push more](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=83.71066666666663) [data. So the speed test that we're getting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=86.71066666666658) [here is a really, really slow internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=88.91066666666666) [connection. Our users are definitely going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=90.77733333333332) [to complain about this. So let's close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=92.8297142857143) [this window. And we'll rerun that test in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=95.32971428571433) [a little bit. For the time being, we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=97.95309090909088) [also do a traceroute and find out what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=100.81672727272719) [path we're taking. So we'll do tracert to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=103.37733333333333) [8. 8. 8. 8. We're really only interested](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=106.04399999999995) [in the first couple of hops of that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=108.71066666666658) [connection. I forgot that -d again. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=111.91066666666667) [we'll try that again. There we go. Make it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=115.17733333333335) [run faster. It looks like our connection,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=118.63490909090906) [the first hop we hit is R2 at 20. 1. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=120.86218181818175) [second router we hit is 10. 0. 0. 1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=124.26139130434782) [That's router 1. So it means we are going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=126.21791304347828) [across that serial link. We need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=128.17443478260873) [redirect our traffic so it goes across our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=130.32971428571426) [Fast Ethernet link. So let's go look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=133.7582857142856) [what we need to do to accomplish that.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=136.1803636363636) [Let's look on router 2, and on router 2,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=137.99854545454536) [I'm going to issue the command show ip](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=140.044) [ospf neighbor. And what this command is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=141.94876190476194) [going to do is it's going to show me my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=143.61542857142862) [neighbors that I have for OSPF. What I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=146.31672727272726) [expect to see here is I should have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=148.86218181818177) [neighbor relationship with R1, and I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=151.72581818181808) [should have a neighbor relationship with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=154.1273333333333) [R3. And I do. R1 has that address of 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=156.62733333333324) [0. 99. 1. R3 has the address of 10. 0. 99.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=160.47257142857143) [3. So we are neighbored up with both of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=164.6630476190476) [those devices, which tells me that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=166.64399999999992) [something is going on right here. But](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=167.84399999999985) [still my default route to the internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=169.4286153846154) [isn't going the right direction. So what I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=172.1209230769231) [want to do next then is find out if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=174.90114285714284) [there's something happening on R3 that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=177.47257142857134) [causing my issue. So let's open another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=179.186857142857) [PuTTY window. And what I'm going to do is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=181.84399999999997) [SSH to R3, 10. 0. 99. 3. We'll log in. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=185.89399999999986) [here we'll issue the same exact command,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=190.64400000000003) [show ip ospf neighbor. And here we only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=193.44400000000007) [have one OSPF neighbor. That neighbor is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=197.044) [10. 0. 99. 2, which is R2. I should be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=200.544) [seeing another neighbor here for device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=205.21066666666667) [10. 0. 99. 4, which is our 3560 switch. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=207.54399999999998) [I do not have a neighbor relationship with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=211.48844444444447) [my 3560 switch. Well let's do some testing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=215.04400000000012) [there. Can I ping my 3560 switch from R3?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=218.59955555555578) [Give it a try. So I'm going to ping 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=221.71066666666675) [0. 13. I get five responses, almost](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=225.37733333333352) [instantaneously. Well, what is happening?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=229.04399999999998) [What is causing our neighbor to not form](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=232.044) [with the 3560? If I do a show ip int bri,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=235.37733333333327) [we see here that my IP address is 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=239.9606666666665) [0. 14 on FastEthernet0/0. If I compare](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=243.9487619047619) [that to my drawing, that's what it should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=246.61542857142857) [be. Well what's causing the issue here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=249.6630476190476) [then? We're not sure yet. How about this.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=251.75828571428568) [Let's do a show run int f0/0. And here if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=254.044) [I look I have IP address 10. 0. 0. 14 with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=259.044) [a mask of 255. 255. 255. 248. Well. 248](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=264.544) [means that the mask is a /29, and the mask](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=268.9011428571429) [that I have on my drawing is a /30. One of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=273.1868571428573) [the things that OSPF must have in order to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=277.744) [create a neighbor relationship is that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=280.89400000000023) [IP addresses and the masks on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=283.3440000000004) [interface have to be on the same network,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=285.40763636363624) [and the mask has to be the same length.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=287.58945454545426) [And in this case, it must be that I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=290.044) [the correct mask configured on the 3560,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=293.6803636363637) [and I have the incorrect mask configured](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=296.22581818181834) [here on my R3. So let's go to config mode](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=299.169) [and fix that--int f0/0. We say ip address](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=304.794) [10. 0. 0. 14 because that is correct, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=308.6439999999999) [we need to change the mask to 252 as the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=312.2439999999997) [last octet. Once I do this, very shortly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=316.24399999999946) [after I should see a neighbor relationship](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=319.51458823529424) [state change for OSPF. Now I am not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=322.3969411764709) [running terminal monitor here, so I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=325.15511111111107) [not see the log message for that. But if I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=327.09955555555547) [do a show ip ospf neighbor again, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=329.9815) [should see two neighbors now. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=332.4815) [looking much more promising because now I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=334.744) [actually do have a neighbor relationship](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=337.1940000000002) [with 10. 0. 99. 4. If I do a show ip route](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=339.2940000000003) [now from R3, we should see that our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=344.0440000000001) [default route is pointing to the next hop](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=347.47257142857165) [of 10. 0. 0. 13. And that is exactly what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=350.9011428571432) [we're seeing here. So R3 now has a default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=354.54400000000004) [route that's going over the Fast Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=357.24400000000014) [links. Let's go back to R2 and see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=359.32971428571426) [there's any change there. So we'll issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=361.90114285714276) [the show ip route again. And now it looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=363.86218181818174) [like we do have an update to our default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=366.316727272727) [route. We're going out to 10. 0. 0. 6,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=368.7712727272723) [which is the router 3 interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=372.7773333333331) [FastEthernet0/1. So this is the correct](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=375.57733333333294) [direction now. Let's go back to the PC and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=377.98844444444455) [do that traceroute again. This time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=381.4884444444448) [instead of going all the way out to 8. 8.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=383.524) [8. 8, how about if I just go to my whole](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=385.9240000000001) [network's default gateway of 203. 0. 113.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=388.5640000000002) [89. And that'll keep that path a little](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=390.86218181818185) [bit shorter, but it will tell us the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=393.77127272727284) [precise path that we're taking through our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=396.68036363636384) [network. So we start again with hitting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=399.186857142857) [R2. Now we're hitting 10. 0. 0. 6, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=401.6868571428568) [is R3. Then we hit 10. 0. 0. 13, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=404.3297142857142) [the 3560. Then 10. 0. 0. 9, which is R1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=407.47257142857126) [And then, finally, we get to our default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=411.1744347826085) [gateway's address at 203. 0. 113. 89. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=414.304869565217) [we go back to Google again, I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=417.3969411764706) [do Ctrl+Shift+N to get that incognito](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=420.57341176470607) [window. We'll go to speedtest. net. This](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=422.6910588235297) [appears to be loading a little bit faster](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=425.669) [this time. So we'll begin the test again.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=429.169) [Hopefully we'll get some better speeds](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=431.73942857142856) [this time. We're certainly not going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=433.43485714285714) [get 100 mbps because my internet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=435.5905263157896) [connection isn't that fast, but it looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=437.4991578947371) [like my internet connection is up there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=439.7258947368425) [around 64 or 65 mbps. So this is a whole](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=442.39182608695637) [lot better than our 1. 5 mbps we were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=446.304869565217) [seeing before. So this means that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=449.8396) [actually did affect the speed of our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=452.62420000000014) [traffic by modifying the routing table on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=455.40880000000027) [our routers, by getting OSPF to neighbor](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=458.25000000000006) [up correctly. Here it's testing my upload](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=461.16666666666686) [speed. Upload speed looks like it's right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=463.68133333333344) [around 5 mbps. So we can close out our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=466.03520000000026) [test now. It looks like we had good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=468.7106666666666) [results with our test. We can move on to the next problems in our system.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=5&mode=live&start=470.9328888888888)

### [Demo: Troubleshooting Access to Network Resources](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live)

[Let's look at some more issues that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=0) [having on our network. Now we have another](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=2.4579999999999997) [user that's complaining. We haven't really](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=5.098764705882352) [paid attention to that network that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=7.216411764705879) [hanging off of that 3560 switch. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=9.334058823529409) [have a user over there that's at the 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=12.020333333333337) [0. 15. 10 device on our network that's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=15.020333333333342) [PC connected to the 2960-1 switch. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=18.131444444444444) [that user is complaining that they cannot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=21.242555555555544) [access any network resources at all. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=24.353666666666644) [we're going to have to find out what is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=26.82985714285714) [happening over there on that network and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=29.401285714285702) [fix any issues that are occurring. I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=31.401285714285695) [going to do all the troubleshooting once](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=36.037) [again from the 10. 0. 20. 10 workstation,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=38.48700000000001) [which is the workstation that you see in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=41.28700000000002) [front of me now. If I open up a command](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=43.687) [prompt and we try to send a ping message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=46.187) [to 10. 0. 15. 10, we are probably not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=48.437) [going to get a response. So what this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=51.23245454545456) [means is that something is broken on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=53.77790909090912) [network. Well let's see how far we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=56.437) [get, and let's next try pinging 10. 0. 15.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=59.437) [1 as that is the default gateway](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=62.812) [configured on our 3560 switch. So we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=65.48700000000001) [try pinging that, and I also am not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=68.28700000000005) [getting a response. I'm getting a Request](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=71.4870000000001) [timed out. Well if we try once again, if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=73.63938095238096) [we try to ping, I'll hit Ctrl+C here, if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=75.78223809523813) [we try to ping now another device on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=78.07830434782609) [network, let's try pinging 10. 0. 98. 1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=81.60004347826093) [and it appears that we cannot ping that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=84.73047826086967) [either. So maybe there's an issue on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=87.84084615384616) [3560 switch. There are several other](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=90.91776923076925) [addresses we can ping on that switch, one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=93.02033333333331) [of which is the loopback interface. So if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=95.68699999999994) [I send a ping message to 10. 0. 99. 4, we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=98.28699999999999) [are actually getting a response from that.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=101.58699999999996) [So that tells me that the switch is up and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=103.687) [running. But something else is going on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=107.18699999999994) [causing our VLAN interfaces to not be up.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=109.6369999999999) [So let's jump onto that 3560 switch, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=113.58173684210527) [that is 10. 0. 99. 4. And let's log in. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=118.21331578947371) [we'll log in as ross. We'll put in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=123.74582352941174) [password here, Cisco. And it looks like it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=127.45170588235287) [didn't take my password. Let's try again.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=129.79811111111115) [So maybe I typed it wrong. Let's try it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=131.35366666666675) [one more time. C-i-s-c-o. And I know that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=133.58700000000005) [the password is Cisco and the username is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=135.98700000000014) [ross. I copied and pasted it. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=138.38700000000023) [possible that my username and password is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=141.48700000000002) [incorrect here. Regardless of what is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=144.7536666666667) [correct or incorrect, what we do need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=146.77790909090913) [do is we need to move to the console port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=148.95972727272738) [of that 3560. So if we're in a real](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=151.687) [network, this may mean driving out to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=154.95972727272738) [site where that 3560 is. For me, it's just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=157.86881818181837) [a matter of taking my rollover cable and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=160.63938095238098) [plugging it into the console port of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=162.5441428571429) [3560, which is within arm's reach of me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=164.44890476190483) [right now. So I've done that. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=166.84084615384626) [to open up PuTTY now again. And this time](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=169.187) [we're going to use a serial connection to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=171.437) [connect to our router. We're going to log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=173.437) [in with my password of Cisco. And if I do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=176.37930769230772) [a show run here, we can take a look and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=179.90439130434788) [see if there's anything that looks out of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=182.94786956521756) [line. So my VLAN 10, VLAN 15, and VLAN 98](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=185.3826521739133) [interfaces, those are all configured. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=188.90128571428576) [it looks like there's no shutdown issued](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=190.84084615384617) [on each one of them. We'll do a little bit](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=191.9177692307693) [more investigation of these in a second.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=193.63938095238103) [But, remember, we were unable to get a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=194.97271428571446) [ping response from those. If we keep going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=196.4965238095241) [down our config here and we look at our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=199.63436842105273) [line vty config, this is usually where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=203.42384210526336) [errors occur when we're setting up SSH.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=206.24255555555555) [And here this configuration looks somewhat](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=208.96477777777775) [accurate. Line vty 0 4 here, then the next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=211.29811111111107) [word is login, then transport input ssh.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=215.42033333333336) [Well the problem in our config here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=218.687) [that we don't need the word login. What we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=221.35366666666675) [do need is login local. And adding login](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=224.38265217391307) [local to that line vty 0 through 4 is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=227.16526086956532) [going to allow us to use the local](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=230.2956956521741) [username and password database that we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=232.82985714285712) [configured on the router. That's that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=234.5441428571428) [username ross. If I do a show run and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=236.32336363636364) [include username, we can see that I have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=239.18699999999995) [username of ross set up there. So when I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=242.05063636363627) [say login local here under line vty 0 4,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=245.23245454545463) [it's going to use whatever we've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=248.505181818182) [configured here for username and password.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=250.687) [Now for SSH to work, we must use login](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=253.08700000000005) [local because we have to have a username](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=256.68700000000007) [and a password in order to get SSH to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=259.9913478260869) [work. Line vty 0 through 4, and we'll say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=263.90439130434754) [login local. And that should be enough to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=267.8174347826082) [get our interface to come back up online.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=270.829857142857) [So if we open up a new PuTTY session here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=273.687) [and SSH to 10. 0. 99. 4, hopefully we'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=278.30238461538454) [be able to log in this time. And that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=282.4562307692306) [looks much better. So now we've been able](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=286.48699999999997) [to SSH to our 3560. I'm going to close the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=289.6869999999998) [window of PuTTY that is using the serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=293.1155714285714) [port to connect, and we're going to just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=295.4012857142856) [stick on the 3560 itself here. The next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=297.687) [thing I want to do here is take a look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=300.24699999999996) [all the interfaces on my router. So let's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=303.7669999999999) [do a show ip int bri and see what we see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=306.22546153846156) [here. Right now if we take a look at this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=309.18700000000007) [VLAN 10 with the IP address 10. 0. 10. 1,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=311.8793076923078) [right now the status is up, but the line](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=314.89752631578955) [protocol is down. In order for this layer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=317.7396315789475) [3 interface to be up and pingable, both](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=320.7324545454547) [the status and the protocol have to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=324.00518181818217) [up. Just like we see here for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=327.27790909090965) [FastEthernet0/2 and 3, we see that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=329.86881818181826) [status is up and the line protocol is up,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=332.4142727272729) [as well as our Loopback0 interface is up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=335.687) [and up. And we're SSHed into that loopback](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=338.6343684210525) [interface right now. So what we need to do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=341.581736842105) [is we need to find a way to move those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=344.187) [three VLAN interfaces from the down state](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=346.687) [to an up state. Let's find out what's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=348.437) [happening with those interfaces. If I look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=351.23245454545463) [at my show ip int bri, we notice here that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=354.0203333333334) [FastEthernet0/1 has that unassigned value.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=358.46477777777795) [And if we look at our drawing,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=360.687) [FastEthernet0/1 is the trunk link leaving](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=364.187) [3560 going to the 2960. So let's look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=367.187) [that interface. Let's do show run int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=371.1415454545455) [f0/1, we see that it is configured as a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=373.6870000000001) [trunk link. If I do show int f0/1 leaving](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=376.9597272727275) [out the word run from there, we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=380.23245454545463) [to see the status of this interface. And,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=383.1415454545456) [look, it says it's down and not connected.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=386.0051818181818) [If I look at my switch itself, what I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=388.55063636363633) [seeing there on my 3560 is that there's no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=391.41427272727265) [link light for port F0/1. So that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=395.0203333333332) [interface is down. Let's find out why. Is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=398.2869999999997) [there anything on this device that might](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=401.2495) [be causing the problem? It doesn't appear](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=403.437) [so, but what we can do is we can go on to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=405.56200000000007) [the interface and do a shutdown to bring](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=409.0620000000003) [the interface to an administratively down](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=411.3953333333338) [state. And then do a no shutdown command.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=413.9946923076923) [Now if you notice, I'm not getting those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=417.687) [messages popping up on my screen telling](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=419.687) [me what the status is as it happens on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=421.437) [router. And, remember, to do that I need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=424.6869999999999) [to issue that command do terminal monitor,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=427.8869999999997) [and that will then present those messages](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=430.687) [on the screen. To find out what the status](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=432.89752631578955) [is of FastEthernet0/1 now, we can do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=435.7396315789475) [show int f0/1. Remember, I'm adding that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=438.82985714285724) [do keyword here because I am in config](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=441.82985714285735) [mode. So if we look right now, it does say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=445.2584285714289) [that the interface is administratively](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=448.0869999999999) [down. So let's issue no shutdown here and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=449.42033333333313) [see what happens. And we're going to issue](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=452.15758823529427) [no shutdown. It says that it has changed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=454.98111764705914) [the state to down. And we are not changing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=458.21331578947377) [the state to up. So if this is the case,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=462.0027894736844) [what is probably happening is there's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=466.21331578947377) [probably something wrong on the 2960](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=468.7396315789475) [switch that's causing the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=471.2659473684213) [FastEthernet0/1 on my 3560 to be down. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=473.86881818181826) [why is it that when my interfaced](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=478.0554210526316) [FastEthernet0/1, that trunk link, why is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=480.6343684210525) [it when that interface is down that my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=482.84489473684187) [interface VLANs also go down? Because when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=485.9142727272728) [I looked at my show ip int bri, we noticed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=488.77790909090936) [that my VLAN interfaces, those three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=492.8688181818187) [interfaces there, are all down. It may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=494.7981111111111) [seem a little misleading to say that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=496.7425555555555) [interface is down especially when we look](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=499.03700000000003) [at the status of those interfaces and it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=501.4870000000002) [says that they're up. Well, now, an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=504.2870000000004) [interface in order for it to be in an up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=506.64154545454545) [state, there're two components that have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=509.8233636363636) [to be up. And one is the status, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=511.73245454545446) [effectively the physical layer component](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=515.0203333333336) [of the interface. And then there's also](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=516.6870000000005) [the protocol, which is the layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=519.4012857142858) [component with VLANs. Since there's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=522.4012857142859) [something up with our VLAN stuff, our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=524.6100769230769) [protocol went down here. So our status](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=527.8408461538461) [stayed in the up state and really for a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=530.922294117647) [virtual interface, these interface VLANs,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=534.6281764705878) [the status of up is going to happen](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=536.687) [automatically as long as the interface is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=539.4870000000002) [created and we issue the no shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=541.9370000000004) [command, which is issued by default. But](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=544.4647777777778) [when the protocol component of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=547.1870000000002) [interface is down, the interface is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=549.5203333333337) [effectively down and cannot pass traffic.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=552.0203333333334) [Well in order for those interfaces to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=554.6870000000001) [moved to an up state, there has to be at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=558.2425555555558) [least one interface on the switch that has](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=562.7779090909095) [an active port configured with VLANs 10,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=566.4142727272734) [15, and 98. In our case, that's the trunk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=569.5051818181818) [link. So when our trunk link goes down,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=573.1869999999997) [all three of those VLAN interfaces also go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=576.4597272727267) [down. Well what I need to do now is I need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=579.1155714285717) [to SSH to that 2960. But the only way I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=582.2584285714294) [can get to SSH to the 2960 is to go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=585.2659473684208) [interface VLAN 98. And right now,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=588.7396315789466) [interface VLAN 98 is down on my layer 3](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=590.437) [switch, which means that I will not be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=592.687) [able to get to it on the 2960.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=594.687) [Additionally, FastEthernet0/1 is down, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=596.8869999999998) [I will not be able to get any traffic over](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=598.3869999999996) [to that 2960 switch. So what I'll have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=601.3869999999991) [do once again is use my rollover cable and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=604.959727272727) [plug it into the console port of my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=608.6415454545449) [switch. We're going to open up PuTTY now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=611.922294117647) [and connect via the serial cable. So log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=615.2164117647055) [on to the 2960. Let's take a look at show](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=618.2869999999999) [int f0/1 because that's the interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=621.2869999999995) [we're currently having problems with. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=623.0869999999992) [here it says it's down, line protocol is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=625.1606842105263) [down, and then the most critical piece of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=628.1080526315787) [information that's shown here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=631.0758888888889) [err-disabled. And I'll let you scratch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=633.0203333333335) [your head for a second and think about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=635.353666666667) [when we encountered err-disabled](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=638.487) [situations in the past. If you need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=640.0869999999999) [pause it, think it over. The err-disabled](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=643.1606842105263) [state is only caused by a few conditions.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=645.7396315789472) [And typically on switches, switches move](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=648.687) [their ports to an err-disabled state when](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=651.5105294117649) [port security is misconfigured. So we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=654.8046470588239) [didn't have port security set up in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=657.2133157894738) [previous configurations, but what I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=659.3185789473688) [for the troubleshooting is I added port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=660.8975263157901) [security on here without telling you about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=662.8298571428573) [it. And we're going to have to fix that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=664.8298571428577) [now. So we can quickly see that I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=667.4012857142867) [enable port security by doing show run int](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=670.9811176470586) [f0/1. And we're going to see here that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=674.2752352941171) [have port-security enabled. The default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=677.0869999999996) [mode here is to only allow one single MAC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=678.5869999999994) [address and shut down the port should](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=681.3023846153845) [there be a violation. And when we put port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=683.4562307692304) [security on trunk links, we run into a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=686.8298571428572) [very, very, very dangerous situation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=690.2584285714288) [because on a trunk link, we literally have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=692.401285714286) [no clue how many MAC addresses are going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=695.5051818181819) [to be coming in and out of that interface.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=698.4142727272729) [Since we're connected to another switch,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=701.687) [we could have one MAC address, we could](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=703.2659473684213) [have a thousand MAC addresses. Regardless](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=705.3712105263163) [of the case here, though, we do not want](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=707.0399411764706) [to enable port security on trunk links.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=710.2164117647061) [It's just a bad idea. So let's go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=712.687) [config t, go to int f0/1. We're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=716.7779090909095) [say no switchport port-security. And then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=720.8688181818189) [in order to get rid of that err-disabled](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=723.187) [state, what I have to do is I have to shut](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=725.187) [down the port so it changed state to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=727.937) [administratively down. If I now change](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=730.6869999999999) [that state to no shutdown to get rid of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=733.0869999999998) [administratively down and allow that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=736.687) [interface to move to an up state, what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=738.1575882352939) [happens almost immediately is our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=740.5105294117642) [interface moves to the up state. Once we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=741.937) [took port security off that interface and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=743.937) [cycled the state of it by doing a shutdown](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=745.687) [and no shutdown, it brings that port back](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=747.8634705882354) [to the up state. If we go back to our 3560](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=749.745823529412) [and take a look here now, it looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=753.3536666666669) [FastEthernet0/1 changed state to up. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=756.7822380952385) [then notice that once that interface came](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=759.0716153846154) [up, so did our VLANs. We should be able to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=761.7639230769229) [do a quick test here to see if we can SSH](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=765.8298571428572) [to our 2960 switch, 10. 0. 98. 5 to get to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=770.5441428571431) [our 2960-1 switch. We get a login prompt.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=775.258428571429) [That's a good sign. That means our TCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=778.6343684210527) [session has been established. I'm able to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=782.0027894736844) [log in, so excellent! So it looks like we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=784.544142857143) [resolved one of the issues with that 2960](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=787.115571428572) [switch. I'm going to disconnect the serial](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=789.4012857142867) [cable connection here, and we're just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=791.8975263157894) [going to work from our SSH session to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=794.1080526315787) [2960. Once again, I'm going to do terminal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=797.5051818181818) [monitor so I can see all of the log](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=800.7779090909088) [messages that are happening as I'm working on this device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=6&mode=live&start=804.4597272727267)

### [Demo: Troubleshooting Port Security Violations](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live)

[The next thing I'd like to do is I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=0) [port security enabled on here. Let's see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=4.112) [if port security has any violations](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=6.694315789473684) [anywhere else. To do that, I can issue the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=8.273263157894739) [show port-security command and see if](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=10.641684210526321) [there're any interfaces that look unusual.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=13.014153846153846) [Here is Fa0/2. The action is shutdown, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=15.783384615384616) [this isn't actually telling us what is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=18.932705882352934) [currently happening on the device. If we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=21.403294117647043) [do show port-security, and then we do the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=24.12038095238095) [interface f0/2, let's take a look at that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=27.929904761904744) [because it's the only other interface on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=31.73942857142854) [this device. So this interface does appear](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=34.23466666666666) [to be working correctly. Let's see if we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=36.10133333333332) [can ping 10. 0. 15. 10 from my workstation](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=38.85221052631578) [here at 10. 0. 20. 10. So we'll open up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=42.641684210526286) [the command prompt and ping 10. 0. 15. 10.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=46.50133333333334) [And we're getting a message from 10. 0. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=49.50133333333336) [13 saying Destination host unreachable.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=52.501333333333385) [Well which device is that? We go look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=54.4805) [our handy dandy drawing, and our drawing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=58.418) [says that that is the F0/3 interface of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=61.239428571428576) [our 3560 switch. Our message is getting to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=64.09657142857147) [the 3560, but it's not getting past that.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=67.47569230769234) [And since our 2960-1 is just a layer 2](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=71.168) [switch, our ping message won't actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=73.86799999999998) [get processed by that device. So we really](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=75.66799999999996) [don't know how far our message is getting.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=77.918) [Chances are if we're getting a message](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=79.918) [back from our 3560, what's happening there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=81.668) [is it's saying Destination host](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=84.89527272727274) [unreachable. Usually that means that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=87.62254545454547) [3560 sent out an ARP message looking for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=89.9861818181818) [10. 0. 15. 10 to respond, and it didn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=92.89527272727268) [get a response. So since it didn't get a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=96.168) [response, it couldn't build the frame, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=98.418) [it sent the ICMP message back to me saying](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=100.168) [I can't get there. Let's see if we can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=102.53163636363634) [figure out why our packet cannot get to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=104.98618181818173) [10. 0. 15. 10. So we'll go back to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=107.168) [2960. Most likely the issue is happening](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=111.45371428571431) [on the 2960 itself. The reason I say that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=114.45371428571433) [is because I did get the message back from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=117.59657142857147) [our 3560 saying it couldn't get there.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=120.16800000000009) [We're going to find out if there's some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=122.168) [issue on our 2960 that's causing the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=124.668) [problem. So let's look at our running](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=126.8555) [config, show run int f0/2. And that'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=129.69431578947373) [show us our running config here. It looks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=132.64168421052645) [like we do have port security set up here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=135.54895238095241) [And port security, we're going to run the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=137.26323809523825) [risk of having a violation on this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=138.78704761904788) [interface because by default, we only](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=141.3902222222223) [allow one single MAC address per port. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=144.05688888888903) [once I turn on port security, what's going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=147.4288695652174) [to happen is I only allow the one single](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=149.51582608695665) [MAC address on that interface. If I see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=151.8636521739133) [more than one MAC address, what happens is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=154.00133333333332) [I shut the interface down by default. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=156.2235555555555) [in this case, what I have is a voice-over](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=158.5364210526316) [IP phone plus a workstation connected to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=161.8522105263159) [that switch. And if you remember from a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=164.43115789473703) [course a long time ago far, far away, my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=166.9940869565218) [10. 0. 15. 10 workstation is actually a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=169.73321739130452) [virtual machine. So typically we see at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=172.168) [least two MAC addresses from that virtual](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=174.03466666666677) [machine. So we're going to see two MAC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=175.90133333333353) [addresses from the PC, at least one MAC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=178.37852631578954) [address from the phone, and our interface](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=180.9048421052633) [is only going to allow one single MAC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=183.16800000000003) [address. Well, additionally, if we take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=185.83466666666678) [look at our drawing, it says the voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=187.73321739130444) [VLAN is 10, and the data VLAN is 15. When](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=189.82017391304367) [I examine my configuration, I have the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=192.4407272727273) [data VLAN set to 10, and I have my voice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=194.34981818181825) [VLAN set to 15. So it's just the opposite](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=197.07709090909105) [of what we need. So let's go on to that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=199.75890909090907) [interface, and we're going to adjust a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=202.9407272727272) [couple of things. First of all, we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=205.168) [going to take port security off. We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=207.8603076923077) [reapply it in a moment. Next, we're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=210.50133333333335) [to change the voice VLAN to be 10,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=213.1680000000001) [switchport voice vlan 10. And then we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=215.83466666666683) [going to change our data VLAN to be 15.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=218.2114782608696) [That should go a long way in our ability](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=221.34191304347837) [to send messages to and from that device.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=224.47234782608714) [Next what I want to do is re-enable port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=226.668) [security. I need to re-enable it in such a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=228.918) [way that it's going to allow more than](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=231.45371428571423) [just the one MAC address. So in this case,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=233.73942857142845) [since we have the voice-over IP phone plus](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=236.25890909090913) [a PC, and that PC is a virtual machine](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=238.44072727272737) [connected through a physical machine, so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=240.8952727272729) [we're going to see multiple MAC addresses](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=242.5965714285714) [there, what I want to do is I want to say](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=244.59657142857134) [switchport port-security maximum of at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=248.44072727272726) [least 5 MAC addresses. What's this going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=251.6225454545454) [to do for me? Well, it's going to prevent](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=254.88228571428573) [a user there from hooking up a switch and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=257.0251428571429) [connecting up a bunch more devices. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=259.168) [switchport port-security you have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=262.2305) [remember is dependent upon policies that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=264.418) [your organization sets up. It is not a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=266.6441904761905) [mandatory thing that we have to set up on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=268.5489523809524) [a switch. What it does for us is it helps](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=270.6918095238096) [us prevent devices from getting on to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=273.4537142857142) [network that shouldn't be there. Now in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=275.73942857142845) [order for port security to actually work,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=277.69431578947365) [we have to enable port security by issuing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=279.5364210526314) [the switchport port-security command. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=281.64168421052597) [let's see if we can ping our device. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=283.4723478260869) [let me send a message here to 10. 0. 15.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=287.38539130434754) [10. And we're still getting a message that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=291.7332173913038) [it's not reachable. I do a quick look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=294.01010526315775) [my configuration there, and it looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=296.37852631578914) [my workstation over there on the 10. 0.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=298.5680000000001) [15. 10 device was missing a default](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=301.3680000000003) [gateway. So if I try pinging again now,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=303.81800000000044) [10. 0. 15. 10, we should get a response.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=306.3555) [This is exactly what we would expect. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=309.168) [now we have our network functioning again.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=311.8346666666665) [What we have here is we went through all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=314.168) [kinds of troubleshooting. We saw some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=317.16799999999984) [troubleshooting with NAT. We saw some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=319.668) [troubleshooting with routing. We saw some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=322.668) [troubleshooting with SSH and Telnet. We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=325.36799999999994) [saw some troubleshooting with port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=327.7679999999998) [security. We saw what it looks like with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=329.7679999999997) [missing VLAN and how we can have OSPF not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=333.21561904761927) [form a neighbor relationship because we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=336.64419047619094) [accidentally type in the wrong subnet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=338.8738823529412) [mask. So we covered a lot of issues here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=340.9915294117649) [I put all of the bad configs in a file for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=344.168) [you, so if you want to reproduce this and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=346.55930434782596) [do your own troubleshooting, you have that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=348.5158260869563) [chance to do that. I also put in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=350.5680000000001) [corrected config files so that you can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=353.7180000000003) [examine where any errors that you made](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=356.168) [are, or if you're having trouble working](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=358.2680000000001) [through all the issues of the bad network,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=360.36800000000017) [you can use the good configs to find out where those errors are.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=7&mode=live&start=364.168)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live)

[So just a very quick wrap up. We did a lot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=0) [of troubleshooting of those network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=3.882352941176471) [issues. I just went through all the ones](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=5.64705882352941) [that we did there. I hope you found this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=7.6005294117647075) [valuable. A lot of this information is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=9.658352941176474) [going to be very valuable on the CCNA,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=11.781736842105264) [especially for the base configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=14.30805263157895) [stuff that we were looking at. And I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=15.887) [highly recommend taking a look at all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=18.687000000000012) [those Telnet and SSH configs that we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=21.13700000000002) [worked through, as well as those issues](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=23.512) [with the missing VLAN and port security.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=25.6995) [Let's wrap up this module and go on to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=27.887) [last module for this course where I'm](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=31.068818181818166) [going to do an ICND1 preparation checklist](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=33.2960909090909) [for you and go through some tips and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=36.887) [tricks that we can use on that CCENT exam called ICND1.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m6&clip=8&mode=live&start=44.887)

## [ICND1 Exam Tips](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live)

### [Introduction](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live)

[Welcome to Pluralsight. I'm Ross Bagurdes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=0) [This last module in our ICND1 wrap-up](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=2.666666666666667) [course is going to focus on some exam tips](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=5.7777777777777795) [for you. Now that ICND1 exam will earn you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=9.473684210526315) [the CCENT certification or Cisco Certified](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=12.789473684210524) [Entry-level Network Technician. Our goals](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=15) [this module are to discuss prepping for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=19.833333333333336) [that ICND1 exam. One of the things I'd](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=22.75000000000001) [like to talk about are some learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=25.363636363636367) [styles that you may or may not be aware](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=27.27272727272728) [of. I'm going to encourage you to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=29.72727272727274) [incorporate as many learning styles as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=31.894736842105253) [possible in your preparation for the exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=33.78947368421053) [And I'll discuss some resources you can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=36) [use to find out what you're learning style](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=38.33333333333335) [is best at. And then you can use that to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=41.000000000000036) [your advantage when you're preparing for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=43.40000000000002) [this exam. Second, we'll talk about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=44.60000000000004) [scheduling the exam, and I'll show you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=46.09090909090909) [where to go on the Pearson VUE website to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=48.00000000000001) [do that. Then we'll talk about taking the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=50.45454545454547) [exam. And I'm going to go over what you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=52.30434782608697) [can expect when you show up in that room,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=54.26086956521742) [as well as some of the question styles.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=56.23809523809524) [Now I signed an agreement with Cisco that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=58.14285714285717) [says I won't tell you what questions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=60.047619047619094) [you're going to be asked, but I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=61.89999999999999) [created some questions that are in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=64.29999999999997) [style of Cisco questions, and we can take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=66.39999999999995) [a look at how we might go about solving those.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=0&mode=live&start=73)

### [Neil Flemming's VARK Model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live)

[Let's start by discussing what we need to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=0.02) [do to prep for that ICND1 exam. I'd like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=3.2199999999999998) [to start off by talking about learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=6.77) [styles when we're prepping for this exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=9.395) [In education, most of us grew up with a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=12.02) [paradigm that when we learn, we have to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=15.169999999999996) [read about it, and then we write about it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=17.970000000000002) [And the reality is that most of us do not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=20.65636363636364) [learn well from reading and writing all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=23.383636363636374) [the time. There is a portion of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=25.283157894736842) [population that's really good at that, but](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=27.388421052631582) [then there're others like myself that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=29.23052631578948) [aren't very good at the reading and the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=30.77) [writing component, but it doesn't mean](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=32.77) [that I'm a bad learner. It just means that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=34.27) [I'm not very good at the reading part of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=36.52) [it. But if you show me diagrams and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=38.77) [pictures and talk about it and get me](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=41.23052631578949) [engaged and do something, my learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=43.75684210526319) [experience skyrockets. In vocational](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=45.95333333333334) [education, especially in Wisconsin here at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=47.820000000000014) [the college I teach at, Madison College,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=50.620000000000026) [we are heavily encouraged to abandon some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=53.575555555555546) [of that old paradigm of education and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=56.297777777777746) [bring in as many new style concepts so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=59.02) [that we can be effective at education and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=62.21999999999999) [not just propagate an educational model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=65.42) [that's only effective for a small subset](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=67.9290909090909) [of people. So let's look at this VARK](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=71.11090909090908) [model that Neil Fleming put together. At](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=73.52) [the bottom there, I put a link to Neil](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=75.30571428571429) [Fleming's website where he has a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=77.87714285714291) [questionnaire where you can find out what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=79.59142857142866) [your best learning style is. Here's what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=81.94307692307693) [the VARK model is. It talks about visual](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=85.1738461538462) [learners, meaning a visual learner is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=88.35333333333331) [going to learn very well from diagrams,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=90.35333333333328) [charts, pictures, etc. This is me. I am a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=92.68666666666658) [strong visual learner. And if you noticed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=95.54631578947364) [throughout my video series, I don't put a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=97.75684210526308) [lot of text on the screen. I put a lot of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=100.41130434782606) [pictures and drawings and charts and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=104.23739130434774) [whatnot so that we can observe visually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=106.32434782608684) [what's happening in these data networks](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=108.33578947368417) [and not just have to read about it. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=109.91473684210519) [second one here, the A in the VARK model](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=112.27) [is auditory. Auditory means that you learn](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=114.52) [best when listening to an explanation. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=116.27) [like these videos, you have a visual](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=118.21999999999998) [component to the video, and then you have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=120.31999999999996) [an auditory component to the video where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=122.71999999999994) [you're looking at a diagram, and then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=124.73428571428575) [you're listening to me explain it to you.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=126.73428571428579) [The third type here is reading and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=129.02) [writing. Reading and writing is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=130.86210526315796) [effectively you're going to read a book](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=132.1778947368422) [and then take some notes on it. Or take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=134.02) [some notes and read them back to yourself.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=136.66705882352932) [Reading and writing is probably my weakest](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=139.02) [skill as far as learning goes. However,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=141.71230769230772) [reading and writing are kind of mandatory](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=144.31411764705882) [when we're working in data networking or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=146.3729411764705) [any professional field for that matter. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=148.4317647058822) [it's not that we can just abandon reading](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=150.49058823529407) [as an educational resource. We can just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=152.84352941176456) [focus on the stuff that gets us the most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=155.11090909090913) [bang for our buck with education and then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=158.3836363636365) [use the stuff that isn't so effective like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=161.2927272727275) [reading for me in a more minimal sense,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=163.44857142857146) [but it's still a good idea to incorporate](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=165.35333333333338) [as many of these learning styles as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=167.42000000000002) [possible when you're prepping for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=170.22000000000006) [exam. I'll talk about that in a second.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=172.6200000000001) [The last one here is kinesthetic. Now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=175.71230769230772) [kinesthetic can mean lots of things. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=178.29777777777778) [you are a sports player, maybe you're a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=180.24222222222218) [soccer player, and if you're a soccer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=182.46444444444435) [player, maybe you learn how to move your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=184.52000000000007) [body by acting it out versus watching](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=186.92000000000016) [somebody do it or listen to somebody](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=189.02) [explain it to you. Now, this is involving](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=191.49058823529407) [physical activity. In the land of data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=194.3141176470587) [networking, my opinion of kinesthetic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=196.76999999999998) [means that we are doing some router and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=198.51999999999995) [switch configuration. Whether that is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=201.3199999999999) [actually kinesthetic or not I'm not 100%](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=203.11090909090913) [certain. But we are getting our body](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=205.65636363636375) [involved in typing stuff in to a device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=207.9290909090909) [and learning if what we type in is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=210.4745454545454) [actually doing what we expect it to do. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=213.02) [the four learning styles here--visual,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=215.13764705882366) [auditory, reading and writing, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=216.31411764705902) [kinesthetic--all of us are going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=217.6866666666667) [some component of each of these. And what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=220.0200000000001) [you can do is you can use that link I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=222.60333333333332) [at the bottom there to go to Neil](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=225.81166666666655) [Fleming's website and actually take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=228.1449999999998) [questionnaire to find out what your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=229.94307692307697) [strongest learning style is. And I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=231.7892307692309) [recommend embracing that strong learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=233.72588235294117) [style that you discover in your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=235.49058823529407) [preparation for this exam. My experience](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=237.60823529411755) [in data networking with other engineers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=239.57555555555555) [tells me that most engineers that I work](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=241.24222222222218) [with are visual and auditory and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=243.46444444444435) [kinesthetic learners. The reading and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=245.79777777777784) [writing is usually at the lowest end of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=248.02000000000012) [the spectrum when we're talking about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=251.57555555555578) [learning how data networks work. And for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=254.02000000000004) [me personally, it shows up in all the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=256.52) [educational and reading material as well.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=258.52) [It's pretty clear that the engineers that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=260.02) [write the documentation for data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=262.645) [networking aren't always very strong at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=264.52) [writing. And certainly reading the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=267.02) [information that isn't very well written](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=269.52) [is also challenging. So maybe it's just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=272.52) [that reading and writing is a poor skill](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=274.8621052631579) [set for most engineers in data networking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=276.54631578947374) [because the information is poorly written.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=278.02) [Who knows? Anyway, let's move on and talk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=280.23052631578935) [about how we can use each one of these now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=283.17789473684184) [to best educate ourselves to prep for that ICND1 exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=1&mode=live&start=290.02)

### [Prepping for the ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live)

[Now the idea here is to use your strong](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=0) [learning style to learn as much as you can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=2.8427727272727266) [and then incorporate the other learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=5.685545454545455) [styles, as well as enhance the learning as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=7.71823076923077) [much as possible. Now I'm talking about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=10.79515384615385) [this from personal experience, educating](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=13.199) [hundreds and hundreds and hundreds if not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=14.7615) [thousands of students one on one. What I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=16.949) [recommend here is this. Watch the videos.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=19.61566666666666) [And if you're at this point, you've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=21.663285714285713) [probably watched the previous 13 videos,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=23.329952380952374) [as well as this one. So watch those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=24.758523809523798) [videos. And while you're watching them at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=27.148999999999997) [Pluralsight here, take some notes. So then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=29.948999999999987) [we're engaging two or three learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=32.504555555555555) [styles here. You're listening to me,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=34.17122222222223) [you're looking at the pictures, and you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=35.8378888888889) [writing stuff down. That writing stuff](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=38.115666666666655) [down with a pencil or pen and paper](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=40.44899999999997) [engages a different mechanism in your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=43.560111111111055) [brain than if you're taking notes by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=45.102846153846166) [typing. So I highly recommend that if you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=46.7182307692308) [are typing notes, that's fine, just make](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=49.39900000000001) [sure that you write them down at some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=51.84900000000002) [point as well to engage a different](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=54.56438461538461) [learning style for yourself. When you are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=56.71823076923076) [taking notes, make sure you create your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=58.87207692307692) [own study sheets. I have some samples that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=61.025923076923064) [I'm going to show you in a second here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=63.08536363636363) [But a study sheet that you create is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=65.1308181818182) [intended to focus on material that you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=66.949) [feel less confident about. So make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=69.52794736842102) [you write down the material that you find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=72.10689473684205) [a little bit challenging. My personal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=74.89636842105261) [experience is that the more you write that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=76.79110526315785) [stuff down, some kind of magic happens,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=79.31742105263149) [and all of the sudden, you start to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=81.5115) [understand something better. And you may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=84.0115) [have not discovered anything new about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=85.78233333333331) [that material. Just writing it down and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=87.44899999999994) [processing it sometimes is all it takes to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=89.39344444444434) [understand the topic. If for whatever](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=91.84373684210523) [reason that topic isn't sticking in your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=93.73847368421046) [brain, go back and review it in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=95.949) [videos. Go find a book to read about it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=98.3019411764706) [Look on line to see if you can find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=100.949) [information about it. The next thing here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=102.94900000000005) [is reading. And I told you already that my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=104.50455555555565) [weak skill is reading, but that doesn't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=106.79110526315785) [mean that I stop reading. I have to read](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=108.6332105263157) [in order to understand some of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=111.34899999999998) [protocols and sort through the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=113.79899999999994) [documentation to find out how to implement](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=115.54899999999991) [certain features of routers and switches.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=118.2615) [When we are prepping for ICND1 here, I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=120.8865) [been a big fan of Todd Lammle's for a very](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=124.25334782608695) [long time. He has a book that came out in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=127.29682608695649) [September 2016. It's not mandatory that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=130.34030434782613) [you get this book, but I highly recommend](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=132.2121578947369) [it because it can enhance your learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=134.73847368421065) [quite a bit. When you're reading through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=136.949) [that book, once again, take some notes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=139.44900000000004) [And those notes that you take should be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=141.949) [related to the things that you find most](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=143.8313529411766) [challenging. Next, we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=145.71370588235317) [practice. The practice is going to come in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=147.54900000000004) [multiple mechanisms here. And one of them](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=150.74900000000008) [is going to be that kinesthetic aspect of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=153.09185714285712) [learning here, which is our configuration](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=155.37757142857134) [portion of this. The idea here is that you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=157.091857142857) [can take some specifications for what we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=160.04899999999998) [want to accomplish in our data network and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=162.49899999999994) [then use those specifications to then come](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=165.28233333333336) [up with the right commands and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=167.61566666666675) [configuration so that our router and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=169.6156666666668) [switch operates correctly. So engage](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=171.574) [yourself here. Make sure you're taking](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=173.1365) [notes on anything that you find especially](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=175.0115) [challenging. The next thing that we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=177.54900000000004) [going to practice is questions. So I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=179.94900000000007) [highly recommend getting a bank of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=182.78233333333333) [questions to practice with. There are some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=185.28233333333327) [that come along with this video series. If](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=187.699) [you want to see some questions that are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=189.699) [more challenging than what you might see](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=191.699) [on the ICND1 exam, check out Boson. com.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=193.66328571428568) [They offer some test simulation software.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=195.949) [And that test simulation software in my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=198.949) [experience, the questions are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=202.449) [substantially harder than what's on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=203.56429999999997) [CCNA. Plus, they give you a very nice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=204.7948999999999) [inventory that matches itself against the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=207.56015789473685) [exam objectives for the ICND1 exam. So you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=209.75457894736843) [can kind of see where you're at and where you need to focus more of your studies.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=2&mode=live&start=213.949)

### [Study Guides](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live)

[The study guide that I'm talking about](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=0) [here, I remember when I first was learning](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=1.8546666666666662) [a lot of the material in the late 90s. I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=3.974285714285713) [got confused about the protocols and where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=7.1640000000000015) [they operate and how they interact with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=9.964000000000004) [each other. So I recommend to everybody](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=12.764000000000006) [that you just take this chart. Don't just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=14.992571428571432) [take a picture of it or a screenshot and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=17.278285714285715) [print it off. That'll do you no good. Just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=19.882181818181817) [looking at this sheet probably isn't going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=22.745818181818166) [to do you a lot of good unless you have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=24.97309090909088) [some kind of photographic memory where you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=27.992571428571424) [can just look at this and know where all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=29.992571428571416) [the protocols exist. If you're like me, I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=32.564) [had to write this list out about 20 or 30](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=35.10945454545456) [times before all the protocols stuck in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=38.29127272727276) [the right spot. So make sure you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=40.56400000000001) [engaging as many learning styles as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=42.89733333333336) [possible when trying to memorize where all](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=44.89733333333337) [these protocols fit in this hierarchy. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=47.836727272727266) [other study sheet I'd create for yourself](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=50.83672727272727) [here is a list of the OSI model and TCP/IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=52.74581818181819) [models, and then map out what we call the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=55.47309090909092) [datagram at each layer. So that at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=58.14294736842106) [physical layer there, we have signaling.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=60.66926315789476) [At the data link layer, we have a frame.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=62.564) [At the network layer, we've got a packet.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=64.68164705882353) [And at the transport layer, we have a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=66.564) [segment. Additionally, you're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=68.34177777777782) [want to know what device operates at each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=69.45288888888896) [layer of the OSI model. On the ICND1 exam,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=71.42114285714287) [they're most likely not going to ask you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=73.9925714285715) [what layer of the OSI model a firewall](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=76.27828571428583) [operates, but for your own personal](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=78.8973333333333) [knowledge, firewalls tend to operate now](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=80.89733333333326) [up at the application layer or even](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=82.964) [outside of the application layer, as well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=85.76400000000004) [as at the transport layer. Routers, of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=88.56400000000008) [course, operate at the network layer,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=91.26399999999998) [switches at the data link layer, and hubs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=93.36399999999995) [at the physical layer. Again, you want to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=96.1639999999999) [map out the protocols that occur at each](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=98.79476923076922) [layer. Here at the application layer,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=101.25630769230767) [you're going to need to know the protocols](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=102.74047058823528) [that I've listed there, as well as what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=104.62282352941175) [transport layer protocol they use. Of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=107.0376842105263) [course, all of those protocols up at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=109.24821052631575) [application layer that I've listed are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=112.19557894736835) [either going to use TCP or UDP at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=113.5015) [transport layer. They're all going to use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=115.189) [IP at the internet layer or the network](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=117.3497142857143) [layer. And then they can use a variety of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=120.20685714285719) [protocols at the data link layer and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=122.564) [physical layer depending upon what data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=124.314) [link layer protocol we're using whether](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=126.014) [that be Ethernet or wireless Ethernet or](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=128.714) [maybe even a PPP serial connection. Last,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=131.86399999999992) [you're going to want to know the port](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=134.82715789473684) [numbers for each of the protocols of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=136.93242105263164) [application layer. And, again, like I said](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=139.03768421052644) [earlier, you should know what transport](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=141.3287058823529) [layer protocol each of those application layer protocols use.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=3&mode=live&start=143.44635294117637)

### [Scheduling the Exam](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live)

[Let's move on to the next section here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=0) [where I talk about scheduling your exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=2.6186666666666665) [Now the exam schedule, you're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=4.91) [want to do this well in advance. So for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=7.4099999999999975) [scheduling your ICND1 exam, you're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=10.541578947368421) [to want to make that appointment for that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=12.436315789473685) [exam at least 30 days before you take it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=14.96263157894737) [And the reason for that is that oftentimes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=17.710000000000004) [those exam centers are booked up for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=20.11000000000001) [extended periods of time, and it may take](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=22.182727272727274) [you 30 days before you can actually get in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=24.36454545454546) [and take the exam. I've had it where I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=26.81909090909092) [had to wait a month to take the exam. I've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=28.74333333333334) [also had it where I can go in literally](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=30.410000000000018) [the very next day and take an exam. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=31.91) [just be aware that when you're scheduling](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=34.60999999999998) [this that you should schedule it as far in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=36.70999999999996) [advance as you possibly can. To do that,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=39.29888888888889) [you go to pearsonvue. com. You're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=41.52111111111112) [click For test takers. You're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=43.98142857142856) [search for Cisco Systems. Either create an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=46.48142857142854) [account or sign in to your account. Then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=49.076666666666654) [you're going to select the proctored exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=52.18777777777774) [We're going to select the ICND1 exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=54.91) [You're going to set your preferred](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=57.24333333333335) [language, in this case it's either English](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=59.24333333333336) [or Japanese. You choose your testing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=61.465555555555554) [center. You choose the date and time that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=63.132222222222225) [you want to take the exam. And then you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=65.35444444444443) [pay your $150. Let's go through that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=67.66) [quickly online. I'm going to go over to my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=69.41) [Windows workstation here. So let's take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=73.41) [look at registering for this exam online](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=76.14076923076922) [briefly here. So I'm going to open up my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=78.29461538461537) [web browser, and we're going to go to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=81.79235294117643) [pearsonvue. com. And, again, I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=85.08647058823522) [click the For test takers section here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=87.57666666666664) [And it's going to ask me to search for a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=89.91) [program. The program I'm going to search](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=93.09181818181813) [for here is Cisco Systems. So we're just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=95.31909090909082) [going to select that option there. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=97.57666666666668) [going to bring me to the certification](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=99.31) [exams for Cisco. On this website, there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=102.11000000000004) [really isn't anything to register. It's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=104.91000000000008) [just a bunch of information. So what we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=107.16) [need to do here is go over on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=109.16) [right-hand side. It says To schedule,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=111.41) [reschedule, or cancel an exam. We're going](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=112.79888888888891) [to sign in or create an account. I already](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=114.35444444444451) [have an account here, so I'm just going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=116.83307692307693) [sign in. Once you're logged in or you've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=120.98692307692313) [created an account, you're going to get to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=123.785) [this screen. And what we want to select is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=126.285) [the Proctored Exams. In the Proctored](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=129.71000000000004) [Exams, you're going to have to actually go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=131.57666666666668) [into the testing facility and have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=133.3544444444445) [somebody observe you taking the exam. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=134.68777777777788) [we're going to select the Interconnecting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=137.38058823529408) [Cisco Networking Devices Part 1, 100-105](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=139.85117647058817) [exam, select the preferred language. This](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=143.41) [is English. It'll tell us the exam details](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=148.4814285714286) [here. If you click on the testing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=151.4889473684211) [policies, it'll tell you the rules. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=153.33105263157904) [price is $150. We're going to scroll down](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=155.3385714285714) [here and schedule the exam. Of course,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=158.76714285714274) [it's going to say Do you accept the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=161.51000000000002) [policies? I'm going to say Yes, we accept](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=163.9100000000001) [those policies. Once you've gotten to this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=166.3100000000002) [point, it's going to ask you what testing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=168.02111111111114) [center you want to use. Now I'm in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=169.79888888888897) [Madison, Wisconsin, so I'm going to select](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=172.07666666666665) [this testing center in Madison here, New](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=174.79888888888885) [Horizons. We're going to click Next. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=177.52111111111105) [then it's going to let us select a date.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=180.19571428571427) [Well today as I'm recording this, the date](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=182.76714285714277) [is December 7, which means that I cannot](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=185.052857142857) [schedule an exam. I can't schedule the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=187.65999999999997) [ICND1 exam until January 17 at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=190.10999999999993) [earliest. So it's going to take me, if I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=192.5599999999999) [wanted to take this exam, it'll take me at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=194.91) [least five weeks before I can get in there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=197.16) [to take it. So make sure you're getting](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=199.38619047619048) [online and scheduling this as far in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=201.2909523809524) [advance as you can. I need to select a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=202.9576190476191) [date that's further out because I have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=205.72818181818187) [recently taken the ICND1 exam, so I need](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=208.27363636363648) [to move it out at least 180 days here so](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=211.18272727272748) [we can get to the next step. So let me go](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=213.68777777777782) [to June 30 here and see if it'll let me do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=216.13222222222234) [that. It's going to ask me then, Well,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=218.38368421052633) [what time to you want to take it? We'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=219.6468421052632) [select the one in the morning. There we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=221.3385714285714) [go. So then it's going to tell us what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=224.27363636363637) [exam we're taking, the language, how long](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=225.91000000000005) [we have to take the exam, when our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=227.18272727272736) [appointment is, what location it's at, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=229.66) [then the price of it. It's going to give](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=232.7225) [us some options for some training](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=235.85117647058829) [software. And then we proceed to checkout.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=237.26294117647072) [And here once we're at the checkout, you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=238.91) [can then pay for your exam. So that's how](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=241.19571428571422) [you go register for the exam on Pearson VUE.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=4&mode=live&start=245.91)

### [Exam Taking Tips](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live)

[Before you show up to the exam, make sure](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=0) [like I said earlier that you schedule the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=3.622695652173913) [exam with ample time to study. Do not cram](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=6.842869565217393) [for your exam. Do not stay up all night](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=10.348909090909089) [even if you have a belief that it helps](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=13.621636363636359) [you. UCLA did some research and found out](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=16.89436363636363) [that cramming for tests doesn't work.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=21.02723076923078) [Staying up all night to prep for tests](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=24.258) [doesn't work. It actually decreases your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=26.924666666666656) [performance on the exam. If you do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=28.92466666666665) [better job of prepping for the exam so you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=31.348909090909093) [don't have to stay up all night and study,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=33.80345454545455) [you're going to be much more effective at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=36.258) [the ICND1 exam. The whole idea here is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=39.20536842105266) [that adults typically do not get enough](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=42.15273684210532) [sleep to begin with. And then when we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=44.73168421052633) [trying to prepare for a stressful exam, by](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=47.67905263157899) [staying up all night the night before, it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=50.633) [does not add any benefit at all. It](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=53.633) [actually causes harm to our ability to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=56.508) [take the exam. If you're not ready for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=58.258) [exam, reschedule it. You need at least 24](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=60.508) [hours' notice to do that. So if you know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=62.77973913043477) [that you're not going to be ready 24 hours](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=65.51886956521736) [in advance of that exam, reschedule it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=68.258) [Review those study sheets you've created](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=71.3205) [before your exam. So when you go to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=73.9455) [exam, don't bring your books. Don't bring](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=76.83694736842101) [a lot of material with you. You're just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=78.67905263157886) [going to want those couple of study sheets](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=80.8895789473684) [that you've created so that before you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=83.41589473684205) [walk into the exam, you can review those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=85.62642105263149) [study sheets and then put them away and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=88.02270588235295) [then go relax. Reviewing those study](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=90.37564705882356) [sheets is different than cramming.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=92.383) [Cramming means that you don't know the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=94.258) [material, and you're going to try to learn](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=96.883) [it in a very short period of time.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=98.65800000000002) [Creating those study sheets typically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=100.258) [means that you have done the right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=101.508) [preparation for the exam, and you're just](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=103.258) [trying to prime your brain for remembering](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=105.36326315789472) [the stuff that you found a bit challenging](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=107.94221052631575) [to remember throughout your education. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=110.88957894736835) [don't cram for the exam. Prepare for it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=113.56569230769233) [Make those study sheets for yourself that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=117.258) [you can review before you walk into the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=119.4455) [exam. When you show up for the exam at the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=121.9455) [testing center, they're going to have you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=124.62642105263151) [empty your pockets. I've even had a test](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=126.46852631578936) [proctor ask me to pull my pockets inside](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=128.7285882352941) [out of my pants. They're going to make](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=131.0815294117646) [sure that everything is out of your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=133.3106315789474) [pockets including any money that you have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=135.15273684210536) [in your pockets, your wallet, your cell](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=136.9948421052633) [phone, all that stuff they're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=138.758) [have you put in a locker so that when you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=140.508) [walk into the exam room, you're literally](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=143.25800000000004) [walking in with your clothes. And that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=145.59133333333344) [about it. They will give you a piece of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=147.81355555555555) [plastic paper and a marker to use. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=150.3135555555555) [when you walk into the exam, I highly](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=152.608) [recommend writing down on that plastic](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=155.40799999999996) [sheet of paper any notes of stuff that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=157.50799999999992) [you've found challenging to remember that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=160.25800000000004) [you just reviewed on that sheet. And you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=162.2580000000001) [should do that before you start the exam](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=164.86669565217395) [so that you have your memory down on the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=167.3014782608697) [piece of paper now instead of up in your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=170.0406086956524) [head, which will get lost and confused](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=172.92466666666672) [once you start taking the exam. The ICND1](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=175.25800000000012) [exam is testing you fundamentally on two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=178.03577777777778) [things. It's testing you on your technical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=180.75799999999998) [skills and your problem solving skills. On](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=183.48022222222218) [the technical skills side, this is pretty](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=185.41184615384614) [straightforward. They're going to test you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=187.02723076923073) [on your protocol knowledge, your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=189.4455) [configuration knowledge, and "Cisco](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=191.633) [knowledge. " And I put that in quotes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=193.383) [because that's the stuff that Cisco wants](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=195.62163636363633) [you to know that may not be valuable in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=197.21254545454536) [the real world. These are things like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=199.258) [standard access control lists go as close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=201.2024444444444) [to the destination as possible and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=203.1468888888888) [extended access control lists go as close](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=205.11514285714284) [to the source as possible. Well, that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=208.11514285714276) [only true some of the time. And it's not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=210.88957894736845) [valuable in the real world, but it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=213.73168421052642) [incredibly valuable for taking the exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=215.94221052631596) [The second side here, problem solving](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=217.64688888888887) [skills, there are of course going to be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=219.3135555555555) [technical and network-related problem](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=221.71953846153846) [solving that you're going to have to do.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=223.56569230769227) [But my experience of the Cisco exams is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=227.258) [that the problem solving skills that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=228.94221052631585) [they're actually testing you on are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=230.20536842105273) [nontechnical in nature, and they're using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=231.758) [the exam itself as a tool to check if you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=234.758) [can solve problems. So these are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=239.758) [nontechnical in nature. And it's not that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=242.383) [you're going to get nontechnical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=245.008) [questions. You're going to get technical](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=246.883) [questions that have strange answers. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=249.25800000000004) [you may read the question, and there may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=251.5246666666667) [not be a right answer apparent. So we have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=253.65800000000013) [to kind of hack the question as we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=256.25800000000004) [taking it because if we can't find the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=258.92466666666655) [right answer, we're going to have to find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=261.59133333333307) [out which answer we need to select so that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=263.3014782608695) [we can move on to the next question. We're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=264.86669565217375) [going to look at some of those strange](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=266.62642105263154) [questions and answers and a method to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=269.57378947368403) [approach solving those so that you don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=272.15273684210496) [get tripped up during the exam. So like I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=274.05799999999994) [said earlier, when you begin that exam,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=276.158) [write down any notes that you might easily](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=278.2580000000001) [forget first. And then relax and don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=280.6580000000002) [panic. Take a deep breath. Don't panic!](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=283.3413333333334) [When you're answering the questions, read](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=286.258) [all the instructions carefully! And I'll](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=289.8580000000001) [say that again. Read all the instructions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=292.9948421052631) [carefully! I accidentally skipped over a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=295.57378947368403) [question on my exam. Fortunately it did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=297.7843157894734) [not cost me enough points so that I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=300.07618181818174) [fail it, but I skipped over a question](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=302.530727272727) [that had multiple sub-questions under it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=304.712545454545) [and it did cost me a lot of points on my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=306.9050588235295) [final score. So make sure you read all the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=311.4344705882356) [instructions carefully. It's very easy to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=314.31682352941186) [misunderstand what they're asking from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=316.0815294117649) [you, so make sure that you read all those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=317.67466666666667) [instructions carefully. I think I've said](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=321.42466666666684) [that enough now. The questions are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=324.258) [intentionally tricky. They are trying to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=327.258) [trip you up. They're trying to make you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=329.8579999999999) [feel like you don't know what you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=333.0579999999997) [doing. That's their intention. My advice](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=335.85799999999955) [there is don't panic about it. Sort](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=338.25799999999987) [through the questions. Solve the problem.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=341.0579999999997) [Don't let your ego get involved here and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=343.30800000000005) [judge you about what you can and can't do.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=346.10800000000023) [The questions are designed to be tricky to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=349.258) [make you feel like you don't know](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=351.758) [anything. So just relax and walk through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=353.9455) [the problem as best as you can. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=356.3580000000001) [correct answer is not always apparent.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=359.1580000000003) [This happened to me more than once.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=361.258) [Probably about 30% of the questions that I](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=363.8369473684209) [answered, the correct answer was just not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=366.7843157894734) [clear at all. What I had to do actually](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=369.1151428571428) [was the next step here, the incorrect](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=371.6865714285713) [answers were very easy to spot. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=373.68657142857126) [correct answer was almost impossible to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=376.04371428571415) [find for me. So what I ended up doing was](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=378.18657142857114) [finding all the incorrect answers first](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=381.70800000000014) [and then crossing those off and then using](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=383.8080000000003) [that to my advantage to find the right](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=386.558) [answer. So there was more than one case](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=388.9580000000001) [where I actually selected answers to a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=391.3580000000002) [question when I had no idea if the answer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=393.6697647058824) [was correct or not. In fact, the answers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=396.8462352941179) [didn't even make sense to me. But I did](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=399.21038095238094) [know that the other answers that were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=401.3532380952381) [listed under that questions were](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=403.0199047619048) [incorrect. So if you have an example where](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=404.7316842105262) [you have a question with four answers, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=407.6790526315787) [you know that two of them are incorrect,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=410.62642105263154) [well you just increased your chances of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=413.57378947368403) [guessing correctly from 25% when you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=416.15273684210496) [didn't eliminate the incorrect answers to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=418.64261538461534) [50% when you did. So eliminate those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=421.41184615384606) [incorrect answers first. Next, for the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=424.3168235294118) [long questions, sometimes you're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=426.43447058823546) [get a question that's several paragraphs](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=428.5521176470591) [long, read the answers first because then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=430.9050588235295) [you can prime your brain of what might be](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=433.7874117647061) [an answer they're looking for as you're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=437.18107692307694) [reading the question. Then you don't have](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=439.3349230769232) [to spend so much time reading the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=441.05799999999994) [question, looking at the answers, then](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=442.45799999999986) [going back and re-reading the question](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=443.6579999999998) [again. If you read those answers first,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=445.20536842105264) [your brain will be primed to look for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=447.4158947368422) [those types of answers inside of the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=449.94221052631593) [question itself. Read the instructions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=453.258) [carefully! I know I have beat this one](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=454.85799999999995) [like a dead horse. Read those instructions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=456.45799999999986) [carefully. There is more than one question](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=458.4246666666667) [on that exam where a single question is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=461.1468888888891) [going to have multiple sub-questions. You](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=464.258) [can easily end up skipping over questions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=466.25799999999987) [if you do not read those instructions carefully.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=5&mode=live&start=468.59133333333307)

### [Example Questions](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live)

[The questions themselves. Like I said](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=0) [consistently throughout this video, they](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=3.2264999999999997) [are tricky. So I've come up with some](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=5.159142857142856) [sample questions so that you can see what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=7.444857142857141) [you might expect, and we can walk through](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=9.730571428571432) [a process of how to solve them. So here's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=11.968666666666671) [the easy one. Of the following, which is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=14.468666666666678) [related to verifying that the data sent is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=16.880947368421047) [the same as the data received, and does](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=19.407263157894718) [not request a retransmit should the data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=22.211090909090906) [verification fail? Well that is a very big](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=25.39290909090908) [statement. There is some precision in it,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=28.016285714285708) [and there is also some vagueness in it. So](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=30.0162857142857) [in this case, we don't have to know the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=32.681866666666664) [answer to this question blindly. They've](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=36.10066666666665) [given us 12 answers here to choose from,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=38.33168421052632) [and we have to pick 4 of those 12 answers,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=40.98515789473687) [meaning that 8 are incorrect. So now that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=44.302) [I know that 4 are correct and 8 are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=46.73678260869563) [incorrect, I can use that to my advantage](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=49.47591304347821) [when I analyze the answers. So if we start](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=51.96866666666667) [looking at these answers. UDP here--UDP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=54.96866666666669) [actually does kind of meet this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=57.052) [requirement. UDP does not request](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=59.302) [retransmission should the data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=61.177) [verification fail, and there is a checksum](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=62.635333333333335) [value in the UDP header that allows us to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=64.96866666666666) [check to see if the data sent is the same](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=67.96866666666662) [as the data received. But we're going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=70.15914285714284) [leave that be for a second because we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=71.30199999999995) [looking for the four best answers here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=72.68295238095239) [UDP may be one of those, but let's find](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=75.34961904761904) [out if there're some better answers. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=78.77819047619046) [next one down is IP. Well IP doesn't do a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=81.15914285714288) [lot of verification of the data sent being](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=84.0162857142858) [the same as the data received. The next](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=86.302) [one, FCS, the frame check sequence. Well](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=88.58771428571434) [that is the footer of a frame header, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=90.72305263157895) [in there is the cyclical redundancy check,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=94.51252631578946) [the CRC, which is used to verify that the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=97.45989473684207) [data in the frame that was sent is the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=99.51939130434786) [same as the data that was received. And](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=101.08460869565225) [should the value of the CRC not be the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=102.71109090909091) [same in the frame header as the computed](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=106.39290909090907) [value on the receiving device, the device](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=109.66563636363632) [will throw away the frame and not request](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=112.45584615384617) [a retransmit. So it looks like FCS is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=115.53276923076926) [probably a good option here. It looks like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=118.19673684210524) [letter J there is CRC. So FCS and CRC are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=120.72305263157888) [probably two of the answers, which is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=123.73057142857147) [lightbulb that should go off for myself](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=126.0162857142858) [saying, Hey, this question is probably](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=128.01628571428583) [asking me about an Ethernet frame and not](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=131.1145) [a UDP segment. So let's see if there are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=135.6145) [two other answers that relate to Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=138.93836363636368) [on here, and then we'll have our four](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=140.84745454545464) [answers. So well start with the FCS as a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=143.02927272727288) [correct answer. If I go down, SSH and TCP,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=145.96866666666673) [no, those aren't it. F there--CSMA/CD,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=148.96866666666682) [well, that is a description for an old](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=151.2250769230769) [version of Ethernet. So that's probably](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=154.91738461538452) [one of the correct answers. 802. 3, well,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=157.53729411764704) [that's another way of describing Ethernet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=160.83141176470582) [that's the IEEE specification number for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=163.302) [Ethernet. And then we've already said that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=165.30200000000005) [CRC is probably one of those choices as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=167.63533333333345) [well. So when I'm answering this question,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=170.46866666666665) [even though UDP is a possible answer here,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=173.19088888888885) [I'm going to not choose UDP because there](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=176.302) [are four clear answers that all relate to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=179.9019999999999) [Ethernet, two of them are related to that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=183.5019999999998) [FCS and the CRC value. Let's move on to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=187.52422222222216) [sample question 2 here. This is a little](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=190.87342857142855) [bit harder. What is used in a modern](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=192.01628571428566) [network to connect 2 devices together?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=194.44485714285716) [Pick 2. So we have 100BaseT, a Switch,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=196.58771428571433) [RJ-45 Connector, Cat6 Patch Cable, RFC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=200.8314117647059) [791, and the TCP/IP Stack. Well, I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=204.36082352941182) [argue that you can use all of those to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=208.35199999999998) [connect two devices together in a modern](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=211.50199999999992) [network. But what Cisco is looking for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=213.95199999999988) [here or in my case what I'm looking for](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=215.6656363636363) [here are what are the two best answers](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=217.71109090909079) [that will allow us to connect two devices](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=219.6096923076923) [in a modern network. Well if I start with](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=222.07123076923088) [the 100BaseT, that is a description of a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=225.4072631578948) [100-MB network using twisted pair cabling.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=228.77568421052646) [Can I use that? Sure. Is it the best](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=231.302) [answer? I don't know yet. I'm going to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=235.15914285714274) [tentatively scratch that one off the list.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=237.90199999999996) [A switch--a switch is a physical thing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=239.30199999999988) [that I can actually use to connect two](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=240.7019999999998) [devices together. So that might be high on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=243.30200000000002) [my list. And RJ-45 connector--well, that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=246.50200000000007) [another physical thing that is a component](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=248.90200000000002) [used in connecting devices together, as is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=251.70200000000006) [a Cat6 patch cable. RFC 791--that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=254.902) [describes a protocol, specifically](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=258.1020000000001) [internet protocol. And then the TCP/IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=260.23533333333353) [stack--that is a description of the set of](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=263.102) [protocols used to encapsulate data on our](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=266.7019999999999) [workstations. So it's probably not RFC](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=269.8519999999998) [791, and it's probably not that TCP/IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=272.5242222222223) [stack because those are simply describing](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=275.6353333333335) [protocols used in communication between](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=278.302) [devices. So that leaves me with B, C, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=280.3019999999999) [D. And if I think about this, what I would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=283.9019999999997) [need to connect two devices together is a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=287.16563636363634) [switch and Cat6 patch cables. The RJ 45](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=289.71109090909084) [connectors are already connected to those](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=292.5520000000001) [Cat6 patch cables. So if I choose B and D,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=295.0520000000002) [those appear to be the best answers, and](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=298.12808695652166) [those appear to be two things that would](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=300.21504347826067) [allow me to connect two devices together](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=302.302) [and their use in a modern network. Sample](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=305.802) [question 3--this is an absurd one. This is](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=309.6145) [a question that I created that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=312.1145) [nontechnical, but this is how I felt many](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=313.9895) [times taking almost every single Cisco](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=316.7725882352943) [exam I've ever taken. What is a sweet](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=318.89023529411793) [fizzy beverage called? Choose one. Is it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=321.8575555555557) [Soda, Cola, Coke, Pop, or Carbonated](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=324.5797777777781) [Drink? I don't know. I literally don't](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=326.91311111111156) [know. It is an absurd question. I have no](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=329.1020000000001) [idea how to solve this. So be aware that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=331.8020000000002) [Cisco sometimes puts questions on that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=334.98621052631586) [exam that they won't use in your final](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=337.5125263157896) [score. You may not have the ability to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=340.8809473684213) [pick out what those questions are. In this](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=343.4020000000001) [case, I would just guess. I grew up in](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=345.8020000000002) [Milwaukee, Wisconsin. In Milwaukee,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=348.5327692307693) [Wisconsin, we call it soda. Other places](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=349.7635384615386) [of the country call it pop. Other places](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=351.96866666666665) [call it coke. I don't think any place](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=354.63533333333316) [calls it a carbonated drink, but that's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=357.3019999999997) [not an inaccurate answer either. There may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=359.2431764705883) [not be a correct answer here. They may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=360.8902352941178) [just be throwing it in to either trip you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=362.7781904761905) [up or get some feedback about how their](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=364.92104761904767) [questions are written and how their](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=366.8258095238096) [answers are written. So when you get these](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=368.4131111111111) [questions where there's not a correct](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=370.6353333333333) [answer that you can find, don't panic.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=372.302) [Sort through it as best as you can. Here](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=375.5686666666665) [I've come up with another absurd-like](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=379.5877142857143) [question that has a technical answer here.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=381.30199999999996) [And we can walk through how to solve it.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=383.302) [In networking, what protocol is used to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=385.19673684210534) [efficiently move data between 2 nodes on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=386.6704210526317) [different IP subnets? Choose 1 answer](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=388.7565454545455) [here. Is it Ethernet? Is it IP? Is it TCP?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=390.93836363636376) [Is it UDP? Is it HTTP? Wow! Well almost](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=395.2395) [all of those can be used to move data](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=398.96866666666665) [between two nodes on different IP subnets.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=401.9686666666665) [If we start with Ethernet, can Ethernet do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=404.302) [that? Well Ethernet can do that as long as](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=406.20676190476195) [there's a router in the middle, so it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=408.3496190476191) [seems like Ethernet probably isn't a good](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=411.14815384615383) [answer here. IP--can IP move data between](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=414.378923076923) [two IP subnets? Yes. Can TCP do that? Yes.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=417.44485714285724) [Can UDP do that? Yup. How about HTTP?](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=421.302) [Well, HTTP is designed as the hypertext](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=425.0667058823532) [transfer protocol, and that's used to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=428.3608235294122) [transfer data from a web server to a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=430.44485714285713) [client. So is that a protocol that's used](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=432.73057142857135) [to efficiently move data between two nodes](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=435.0162857142856) [on different subnets? Maybe, but we're](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=437.7019999999999) [pushing it there. So we're going to cross](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=440.10199999999975) [off HTTP because it doesn't feel like that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=442.8020000000001) [might be a right answer only because it's](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=445.20200000000017) [up at the application layer of the OSI](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=447.5797777777778) [model. So that leaves us with three](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=449.80199999999996) [answers here. And all three of these can](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=451.74644444444436) [move data between nodes on different IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=454.444857142857) [subnets. The question is, What does it](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=456.94485714285685) [most efficiently? And when we look at](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=459.40200000000016) [efficiency, we can think about maybe DNS.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=461.8520000000003) [And we went through a case with DNS, which](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=464.302) [is if we used TCP along with DNS, what we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=467.30199999999985) [would find is that we would have to send](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=470.635333333333) [nine messages to resolve a hostname to an](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=474.302) [IP address. SYN, SYN-ACK, ACK. What's the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=478.302) [IP address for this URL? This is the IP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=480.9686666666666) [address for that URL. FIN-ACK, ACK,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=483.9686666666664) [FIN-ACK, ACK. It's nine messages. If we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=486.177) [did it with UDP, it's two messages. UDP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=489.2395) [appears to be more efficient than TCP](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=492.68295238095243) [here, which means that UDP is probably the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=495.3496190476193) [correct answer to this question. I realize](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=498.39723809523855) [it's a tricky one, but you have to watch](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=501.06390476190484) [out for very specific keywords in the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=504.4924761904765) [question so that we can apply those to the](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=507.15914285714337) [answers to choose the best answer. The](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=510.3019999999999) [best answer that you can pick may or may](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=512.6353333333332) [not be the right answer. It's the best answer.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=6&mode=live&start=516.302)

### [Summary](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live)

[Let's wrap up this module here. What we](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=0) [did is we took a look at what we should do](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=2.6419200000000003) [for prepping for that ICND1 exam.](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=6.274559999999999) [Specifically, I think you should focus on](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=8.256) [your learning styles. Go take that quiz](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=10.834947368421052) [over at the VARK website and find out what](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=13.413894736842103) [your learning style is and adapt your](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=16.256) [studies to the learning style that you](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=18.006) [learned about. We talked about scheduling](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=19.756) [the exam, and I walked through the website](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=21.367111111111114) [on what you need to do. I also have that](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=23.589333333333343) [slide up there if you need to take a](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=26.299478260869563) [screenshot of that slide or grab it from](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=28.64730434782608) [the download section so that you can use](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=30.734260869565205) [it as a step-by-step when you're trying to](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=32.66776470588235) [schedule that exam. Taking the exam: We](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=34.55011764705881) [talked about some tips there. One of my](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=36.66776470588235) [biggest ones was don't panic. We did talk](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=39.491294117647044) [about some of the things to expect there,](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=41.80145454545454) [as well as some of the question styles](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=43.25599999999998) [that you might see on that exam. I hope](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=44.71054545454542) [you found all of this valuable. If you are](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=47.603826086956516) [taking the ICND1 exam, I wish you the best](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=51.12556521739129) [of luck. And let me know how it goes. Thank you so much!](https://app.pluralsight.com/player?course=network-icnd1-skills-cisco-ccna-200-125-100-105&author=ross-bagurdes&name=network-icnd1-skills-cisco-ccna-200-125-100-105-m7&clip=7&mode=live&start=55.256)