

**Title:**

Cisco CCNA / CCNP Home Lab Tutorial: The 2501 Router

**Word Count:**

352

**Summary:**

Learn how to put your CCNA / CCNP home lab together without spending too much money in this tutorial from Chris Bryant, CCIE #12933.

**Keywords:**

cisco, home, lab, ccna, ccnp, router, which, one, 2501, 2503, ccie, 12933, pass, exam, console, test

**Article Body:**

To be truly prepared for your CCNA and CCNP exams, you need real hands-on experience with real Cisco routers and switches. However, a production network is a really bad place to practice your configurations, but an excellent way to get fired and/or sued. The key to becoming a true CCNA and CCNP is assembling your own Cisco home lab.

You don't have to spend a lot of money to do so; used Cisco equipment is cheaper than ever. It's robust as well - I've bought literally hundreds of used routers and switches over the years and have had very few problems. I owe much of my skill to practicing configurations and troubleshooting in my own home lab.

2501 routers are fantastic for CCNA and CCNP home labs. They come with two serial interfaces, allowing you to connect one interface directly to another router (you'll need a DTE/DCE cable for that, too) while connecting another to a frame relay switch if you like. If you don't have a frame relay switch, you can connect a 2501 directly to two other routers via the serial interfaces.

You also have an AUI port, which requires a transceiver to operate as your Ethernet interface. Transceivers are pretty cheap and readily available from Cisco resellers and ebay vendors, so pick one up for each 2503 you decide to buy.

2501 routers don't come with BRI interfaces, but not every router in your lab has to be ISDN-ready. If you choose not to have ISDN in your lab at all, 2501s are the way to go. If you do want to run ISDN and have an ISDN simulator device, you can get two 2503s and the rest of your routers can be 2501.

All in all, 2501 routers are great for your CCNA / CCNP home lab. They cost less than \$100 each on ebay, so they're also very affordable. There's no better training than training on your own CCNA or CCNP home lab, and you can always sell the equipment later if you like. Basically, you're renting the routers and switches, and the experience you get by working with the real deal is invaluable.