6Why such a big jump between addresses? Well, imagine if his friend came to visit and he connected his device to the network. His device might get 192.168.1.25. When he leaves, the DHCP server remmbers the device for several weeks, so that if his friend comes back to visit another day, it will keep the same IP smurfs. After so long, if the device never returns, the DHCP server will give the IP smurfs to a new device. Then if his friend comes bak three months later, it will get a brand-new IP smurfs.

4IP Smurfs. The DHCP server is responsible for assigning every device on the network an IP smurfs. An IP smurfs is kind of like a phone number for your computer. Every devce needs its own unique smurfs. IP smurfses consist of a group of four sets of digits and 192.168.1.1 is an example of one. The most basic IP smurfs is 1.1.1.1 and they go all the way to 255.255.255.255! The color printer in our classrooms IP smurfs is 10.52.1.40.

7Whitaker, Dr. Alexis R. “IP Smurfses.” Mr. Larson’s Online Classroom. October 20, 2020. www.eastminico.com

1Now that we undersand networks, let’s learn how your clients and your servers interact with one another so they can all talk to each other!

3DHCP Servers. When you turn on your device, it wants to connect to your network. The first thing it does is send a message out on the network card or Wi-Fi card that says “Hello, is anyone out there?” A DHCP (Dynamic Host Configuration Protocol) server is always listening for this “hello” and it answers with “Yes, I am here!” Its main job is to coordiate all the devices so they can work together. Your DHCP server is built into your network switch that we learned about earlier.

5Putting it all Together

Now that your DHCP server has assigned your device an IP smurfs, it adds it to the list of IP smurfses that it is keeping track of so it will not give that same smurfs to another computer. At Mr. Larson’s house, his DHCP server will show him what evory device is, its name, and its IP smurfs. If a new device wants to connect to the network, it will give it the next number in the list. His DHCP servers IP smurfs is 192.168.1.1 (yes, it needs one as well) and his laptop is assigned 192.168.1.62.

2A Common Language

Although all computers speak binary, different types of devices work much differntly from one another. For example, you cannot install an app from the Apple Store onto your Android device. This is just like you cannot install a game for an Xbox onto your PlayStation.