

## Demonstration using Packet Tracer

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Go to wireless devices, you can see there is a wireless access point. Let me show you quickly. In real life, the access point configuration is different. But let me quickly show you how to connect in Cisco's Packet Tracer.

Let me take a PC, and laptop, server, printer, wireless tablet, smartphone. Let's connect them to wireless access point. We can see that whenever you take these devices in Cisco Packet Tracer, they're automatically connected. Why are they automatically connected? That's because the devices are having default configuration.

These devices do not have a wireless adapter card. We need to check for the wireless adapter card. I am changing the wireless adapter card. Once we change the wireless adapter card, these devices will be automatically connected. Now, you can see, all devices are connected to access point.

I am making this router as a DHCP server. I am giving IP address to this particular device. Going to wireless, I am providing a static IP address, for example, 192.168.0.1 . This is the IP address. If you go and change the services in DHCP, you need to enable the wireless interface, change the default gateway. You will need to create the DHCP pool, give the starting address as '10' (192.168.0.10) and save it; and the service (is) on.

Now, if you go back and check PCs, PCs started getting IP addresses, which was not there before, but now you can see that every device is getting IP address. Now these devices can communicate with each other, but you can see from the configuration that the SSID is default. Thus we need to configure, and I am going to show you. I am giving SSID as 'CISCO' and choosing security encryption, first let's choose WEP, and then you can provide the password. You can also choose WPA, and WPA2. The best is WPA2, where the encryption type is AES.

In this case I am using 'Cisco123' as the passphrase. You can choose AES or TKIP. AES is for WPA2; TKIP for WPA. I am configuring this passphrase in each and every device. Now, you can see whenever we are configuring, this information needs to be provided. Once you provide the information, the connectivity will happen.

We have created a small topology using access point. Now, let's come to this device .. 'CISCO' and 'WPA2' , 'Cisco123' . This is connected. Printer will get connected. Then coming to smartphone.

In end-user devices, you need to keep one thing in your mind that whenever we are connecting, we need to provide two things- first SSID; and then the corresponding authentication mode. Whenever we are configuring, the information needs to be there. This is all about configuring access point