Introduction to Packet Tracer

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What is Packet Tracer?

Cisco Packet Tracer is a comprehensive, networking technology teaching and learning program that offers a unique combination of realistic simulation and visualization experiences, assessment and activity authoring capabilities, and opportunities for multiuser collaboration and competition.

Packet Tracer is a cross-platform visual simulation tool designed by Cisco Systems that allows users to create network topologies and imitate modern computer networks. The software allows users to simulate the configuration of Cisco routers and switches using a simulated command line interface. Packet Tracer makes use of a drag and drop user interface, allowing users to add and remove simulated network devices as they see fit.

Overview

Packet Tracer can be run on Linux and Microsoft Windows. Similar Android and iOS apps are also available. Packet Tracer allows users to create simulated network topologies by dragging and dropping routers, switches and various other types of network devices. A physical connection between devices is represented by a "cable" item. Packet Tracer supports an array of simulated Application Layer protocols, as well as basic routing with RIP, OSPF, EIGRP, BGP. As of version 5.3, Packet Tracer also supports the Border Gateway Protocol.

In addition to simulating certain aspects of computer networks, Packet Tracer can also be used for collaboration. As of Packet Tracer 5.0, Packet Tracer supports a multi-user system that enables multiple users to connect multiple topologies together over a computer network. Packet Tracer also allows instructors to create activities that students have to complete. Packet Tracer is often used in educational settings as a learning aid. Cisco Systems claims that Packet Tracer is useful for network experimentation.

Components of Packet Tracer:

Packet tracer allows you to easily configure the networking devices in a simulation environment by the drag and drop facility by using different components. Some of the major components of Packet tracer are stated below,

1. When you first open the packet tracer, you will see empty area in the middle with some labels and symbols around it as showing in Fig 1.

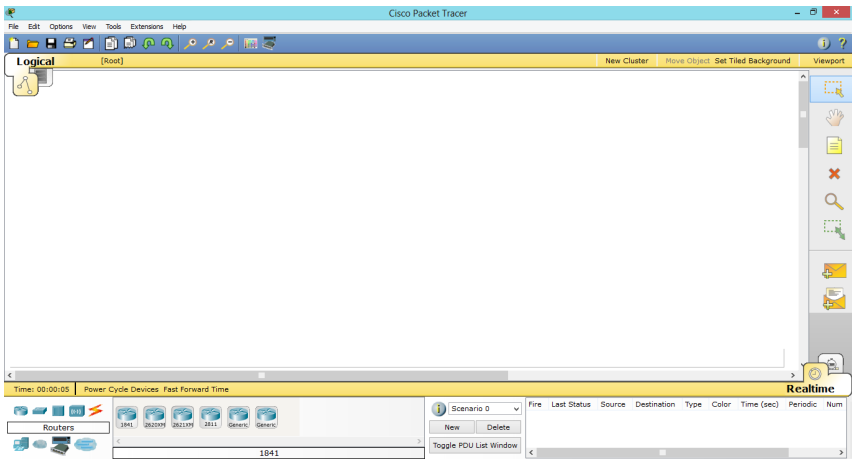

Figure 1: Packet tracer window

2. The right panel shows,

   i **Selection option:** It allows you to move and select networking devices and select different options when working in GUI mode.

   ii **Move layout:** It allows you to move network devices as desired.

   iii **Place note:** It helps you placing note at different areas to keep note of different areas of network.

   iv **Delete:** It allows you to delete a network device or cable.

   v **Inspect:** It helps you to examine different parts or devices of network

   vi **Resize Shape:** It helps you to resize the shape of network devices to adjust them in a single window.

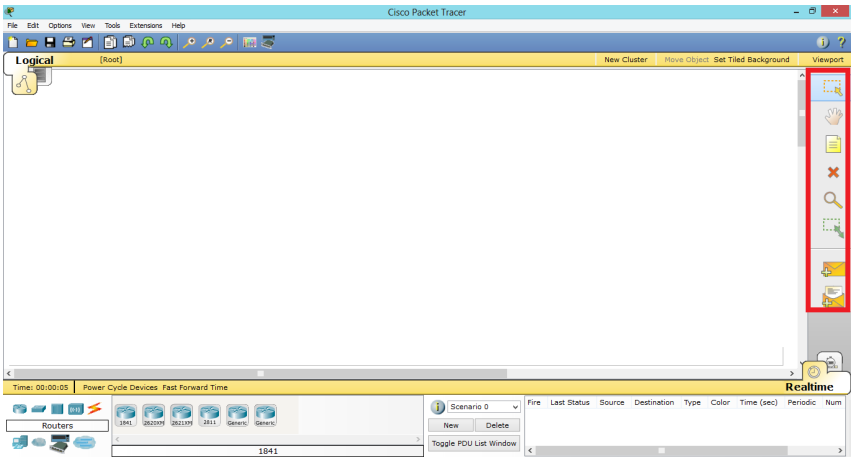

Figure 2: The right panel

3. **The bottom network devices and connection panel:** It allows you to select different network devices and make connections between them.

   i **The router symbol:** By clicking on the router symbol, a list of router symbols of different model appears. One can select a router of its choice and model.

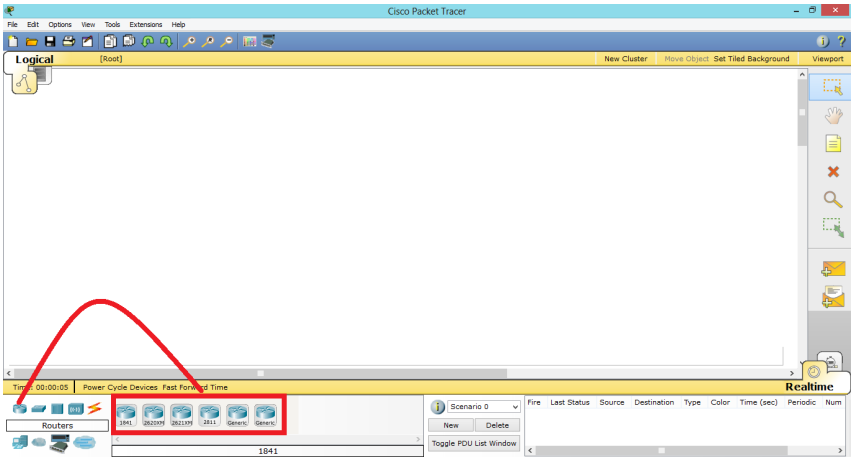

Figure 3: The router symbol

ii **The switch symbol:** By clicking on the switch symbol, a list of switch symbols of different model appears. One can select a switch of its choice and model.

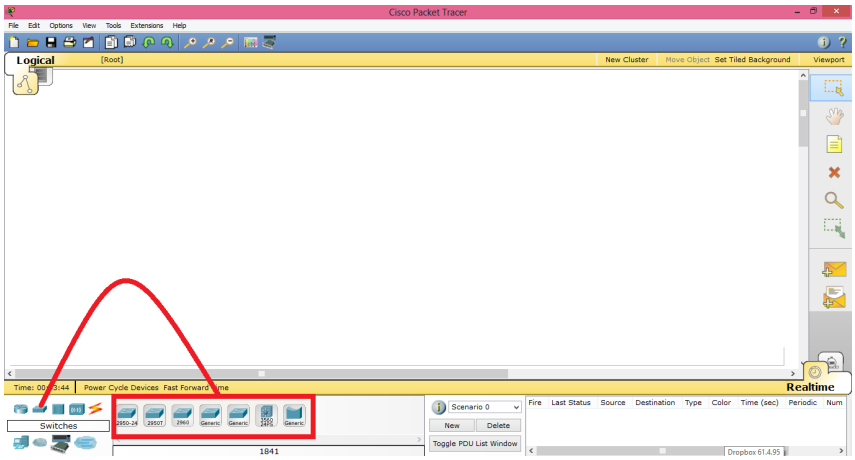

Figure 4: The switch symbol

iii **The hub symbol:** By clicking the hub symbol, one can select a hub of its choices and model (generic only).

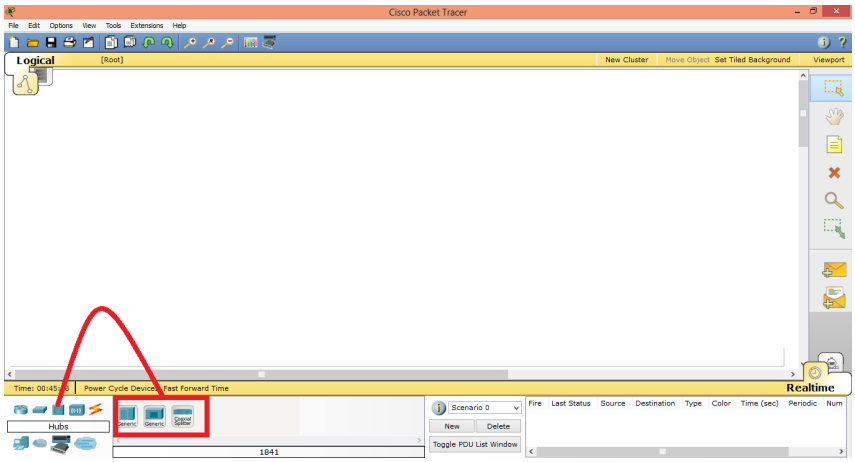

Figure 5: The hub symbol

iv **End devices:** By click on end devices symbol, one can choose between end devices like table pc, laptop or server etc

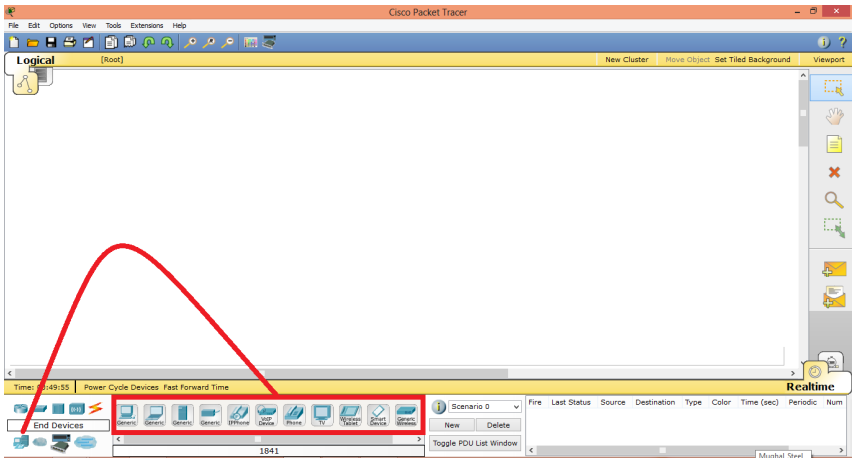

Figure 6: The end devices symbol

v **The connection symbol:** By clicking on the connection symbol, one can choose automatic connection cable or a particular connection cable for connecting same or different devices.

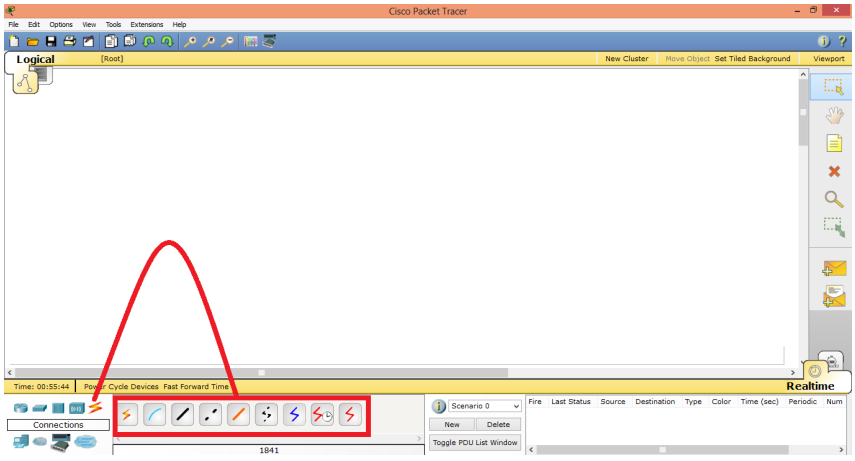

Figure 7: The connection symbol