

## Packet Tracer Virtual Lab Supplementary Instructions

### What is Cisco 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. The innovative features of Packet Tracer help students and teachers collaborate, solve problems, and learn concepts in an engaging and dynamic social environment. Some of the benefits of Packet Tracer are:

- Provides a realistic simulation and visualization learning environment that supplements classroom equipment, including the ability to see internal processes in real-time that are normally hidden on real devices
- Enables multi-user, real-time collaboration and competition for dynamic learning
- Enables authoring and localization of structured learning activities such as labs, demonstrations, quizzes, exams, and games
- Empowers students to explore concepts, conduct experiments, and test their understanding of network building
- Allows students and teachers to design, build, configure, and troubleshoot complex networks using virtual equipment
- Supports a variety of teaching and learning opportunities such as lectures, group, and individual labs, homework, games, and competitions
- Supports feature expansion through external applications using an API to enhance the functionality of Cisco Packet Tracer in areas such as curriculum and assessment delivery, games, accessibility, and interfacing with real equipment.

### How can I obtain Cisco Packet Tracer?

Cisco Packet Tracer is available free of charge to all Cisco Networking Academy® instructors, students, and alumni.

Please follow these instructions to download the software from the NetAcad.com learning environment:

- Log in to Cisco [NetAcad.com](https://www.netacad.com)
- Select **Resources** > **Download Packet Tracer**

You can also sign up for the free "[Getting Started with Cisco Packet Tracer](#)" course on SkillsForAll.com to learn how to download, install, and get started.

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### What if I do not have NetAcad.com account?

The latest version of Cisco Packet Tracer requires user authentication. A NetAcad.com or a SkillsForAll.com account is required to sign in when you launch Cisco Packet Tracer.

Please ask your instructor for a NetAcad.com account or enroll for free in the "[Getting Started with Cisco Packet Tracer](#)" course on SkillsForAll.com for full access to Packet Tracer.

## Installing Cisco Packet Tracer 8.2

### On what platforms can I install and run Cisco Packet Tracer 8.2?

Cisco Packet Tracer 8.2 is compatible with the following platforms: Microsoft Windows 8.1, 10, 11 (32 bit and 64bit), Ubuntu 20.04, 22.04 LTS (64bit) and macOS 10.14 or newer (64 bit).

### What are the system requirements for Cisco Packet Tracer 8.2?

To successfully install and run Cisco Packet Tracer 8.2, the following system requirements must be met:

Cisco Packet Tracer 8.2 (64 bit):

- - Computer with one of the following operating systems: Microsoft Windows 8.1, 10, 11 (64bit), Ubuntu 20.04, 22.04 LTS (64bit) or macOS 10.14 or newer.
  - amd64(x86-64) CPU
  - 4GB of free RAM
  - 1.4 GB of free disk space

Cisco Packet Tracer 8.2 (32 bit):

- - Computer with one of the following operating systems: Microsoft Windows 8.1, 10 (32bit)
  - x86 compatible CPU
  - 2GB of free RAM
  - 1.4 GB of free disk space

### How do I install Cisco Packet Tracer 8.2 on Ubuntu Linux?

Run the command "sudo apt-get install <absolute path to the .deb file>" and follow the instructions shown on your screen.

(Note that using "sudo dpkg -i <absolute path to the .deb file>" will not install the dependencies needed).

## Using Packet Tracer – Limits and Features

### What protocols can be modeled using Packet Tracer?

Layer	Cisco Packet Tracer Supported Protocols
Application	FTP, SMTP, POP3, HTTP, TFTP, Telnet, SSH, DNS, DHCP, NTP, SNMP, AAA, ISR, VOIP, MQTT, SCCP config and calls ISR command support, Call Manager Express
Transport	TCP and UDP, TCP Nagle Algorithm & IP Fragmentation, RTP
Network	BGP, IPv4, ICMP, ARP, IPv6, ICMPv6, IPSec, RIPv1/v2/ng, Multi-Area OSPF, OSPFv3, EIGRP, EIGRPv6, Static Routing, Route Redistribution,

	Multilayer Switching, L3 QoS, NAT, CBAC, Zone-based policy firewall, and Intrusion Protection System on the ISR, GRE VPN, IPSec VPN, HSRP, CEF, SPAN/RSPAN, L2NAT, PTP, REP, LLDP
<b>Network Access/Interface</b>	Ethernet (802.3), 802.11, HDLC, Frame Relay, PPP, PPPoE, STP, RSTP, VTP, DTP, CDP, 802.1q, PAgP, L2 QoS, SLARP, Simple WEP, WPA, EAP, VLANs, CSMA/CD, EtherChannel, DSL, 3/4 G network support

### Does Packet Tracer support all the features found in Cisco devices?

No. The program supports a subset of the features from Cisco devices. Packet Tracer uses simplified models of networking protocols and Cisco IOS; you should always compare your results to those obtained from real equipment. Practice on Packet Tracer is not a replacement of practice on real equipment.

### Why can't I set up a wireless connection to another copy of Packet Tracer using the multiuser functionality?

Wireless connectivity uses a distance parameter set within each instance of Packet Tracer to establish connectivity. In a multiuser connection, the distance parameter cannot be specified, so a wireless connection is not possible.

### Cisco Packet Tracer is running slowly on my device. What can I do to improve performance?

The minimum system requirements allow for the basic use of Cisco Packet Tracer in creating small to medium-size networks. It is recommended that you use a faster machine with more memory to create large networks. You can turn off the Sound and Animation options to increase performance. Some screen reader software may cause a slowdown in performance, which is due to the extra processing required to query Cisco Packet Tracer for screen reader information.

### Some text in the Cisco Packet Tracer application is cut off or not correctly displayed. Can I adjust the font settings?

The font sizes in the Packet Tracer application can be configured from the Preferences → Fonts tab. You may set the entire application scale to fit your needs, and optionally adjust text sizes of various dialogs.

### Where is the "Reset Activity" functionality gone to in Cisco Packet Tracer 8.1 or higher?

Since Cisco Packet Tracer 8.1 the "Reset Activity" is in the File Menu.

### What learning resources are available to me?

The "[Getting Started with Cisco Packet Tracer](#)" course (2 hours) is a quick on-ramp course for those who are new to Packet Tracer. This course is designed to familiarize you with the Cisco Packet Tracer simulation and visualization environment, and it showcases recent features and the latest user interface. To learn more advanced topics about the many Cisco Packet Tracer features, you can access the Help files (from the Packet Tracer menu) that contain comprehensive documentation on almost all the features in Packet Tracer. Plus, find the [Tutorials](#) here to learn about additional features you may be interested in.

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### Why does my command line use text to speech or voiceover that speaks the output on my Mac?

For accessibility requirements and limitations of the command line with screen readers, a text to speech synthesizer has been added to the command line to speak the output by default. You may disable this behavior in Preferences and Select the checkbox "Disable CLI Text to Speech" option.

### Why are my tabs in my device configurations not showing up?

Your Packet Tracer preferences may have been corrupted. You can fix this issue by going into Preferences -> Show/Hide tab and uncheck any item that are hiding the tabs you want. If you are unable to access this tab, you can manually reset your preferences to the default. To do this, you must delete PT.conf file from Windows: "C:\Users\...\Cisco Packet Tracer 8.2.0", macOS: "~/Cisco Packet Tracer 8.2.0" and Linux: "~/pt" and restart Packet Tracer. If you changed the default name during installation, replace "Cisco Packet Tracer 8.2.0" with the name that you used.

### Where can I find information about the accessibility features of Cisco Packet Tracer?

The Cisco Packet Tracer help files contain several sections relevant to Accessibility. Start with the Accessibility top heading. Read through the top heading contents and move on to the specific subtopics. Much of the accessible functionality in Cisco Packet Tracer requires the use of your screen reader's special Screen Reader Keys. Please see the documentation for your particular screen reader.

## References

Cisco. *Cisco Packet Tracer 8.2 Frequently Asked Questions*. Cisco Networking Academy.  
<https://www.netacad.com/courses/packet-tracer/faq>