Official Cisco Free Labs

Download & Setup Guide for CCNA Candidates | NETCAD

You no longer need to pay for expensive emulators or hunt down illegal IOS images on the internet. Cisco has officially made their premium lab environments completely FREE for the community. Use this guide to access and set up the top three lab environments.

1. Cisco Packet Tracer

Best for CCNA Beginners

Packet Tracer is incredibly lightweight, runs on almost any laptop, and simulates switches, routers, and PCs flawlessly. It is a simulator (not real hardware software), but it covers 100% of CCNA topics.

Download Link:

```
https://skillsforall.com/course/getting-started-cisco-packet-tracer
```

How to setup: Just create a free Cisco "Skills for All" account using the link above, download the installer for Windows, macOS, or Linux, and log in to start labbing.

2. Cisco DevNet Sandboxes

Zero Setup (Cloud)

Perfect for practicing network automation, APIs, and Python. Cisco gives you free remote access to actual hardware and virtual machines hosted in their cloud. No local installation required.

Access Link:

```
https://developer.cisco.com/site/sandbox/
```

How to setup: Log in with a free Cisco account. You can instantly access "Always-On" shared labs 24/7, or reserve a private, dedicated lab environment for up to a week.

3. Cisco Modeling Labs (CML-Free)

Runs REAL IOS Images

The ultimate network emulator. Unlike Packet Tracer, CML runs the actual, real-world Cisco IOS and IOS-XE operating systems. The new free Personal edition lets you run up to 5 real network nodes simultaneously.

Registration & Download Link:

```
https://learningnetwork.cisco.com/s/cml-free
```

How to Install CML-Free (Step-by-Step)

Setting up CML-Free requires virtualization software on your local PC. Follow these steps carefully to ensure the virtual machine boots successfully.

Step 1: Register and Claim License

Go to the Cisco Learning Network link provided on the previous page. Register using your free Cisco account. Once logged in, "purchase" the $0.00 CML-Free license to attach it to your account.

Step 2: Download the Required Files

Navigate to the Cisco Software Download page for CML. You must download **TWO** files:

- The **OVA File** (The virtual machine template).
- The **Reference ISO File** (This is a massive file containing all the real Cisco router and switch images).

Step 3: Import into your Hypervisor

Open a free hypervisor like VMware Workstation Player or Oracle VirtualBox.

- Click **File > Import** (or "Open a Virtual Machine") and select the CML OVA file you just downloaded. Finish the import process.
- **CRITICAL STEP:** Do not boot it yet! Right-click your new CML virtual machine and go to **Settings > Storage**. Find the empty CD/DVD drive icon and mount the **Reference ISO** file you downloaded to this drive.

Error Fix: If your VM fails to boot with a "missing operating system" error, it means you either clicked "New" instead of "Import", or you forgot to attach the Reference ISO to the CD/DVD drive in settings!

Step 4: Boot Up and Log In

Click "Power On" to start the virtual machine. The Linux operating system will boot. Stop when the screen reaches a blue/black terminal showing an IP address (e.g., `https://192.168.x.x`).

Open a new tab in your computer's web browser, type in that exact IP address, and log in to the CML HTML5 interface. You now have a professional Cisco lab running locally!