



# Cisco Modeling Labs Enterprise

Network simulation simplified

## Streamline your NetDevOps experience with network simulation on actual IOS images

Your network engineers have been running a variety of open-source simulation tools, often without controls, and with Cisco Internetwork Operating System (Cisco IOS®) images from who knows where. And we get it; simulation is no longer optional. Who has the time or budget to build out actual labs for design, testing, or troubleshooting?

That's why Cisco Modeling Labs offers an on-premise simulation platform with a central store of defined and licensed Cisco IOS images that all your engineers can use. The user interface is based on the familiar Cisco DNA Center™ Canvas, and built-in productivity tools enable fast build-up and tear-down.

Cisco Modeling Labs is the premier platform for modeling both Cisco and non-Cisco networks, large and small. Based on years of experience delivering simulations, we designed Cisco Modeling Labs with scalability, ease of use, and NetDevOps in mind.

## New clustering feature allows horizontal scaling

CML version 2.4 includes a clustering feature that allows for horizontal scaling across multiple servers while still providing a single user interface to manage labs.

The feature currently allows the ability to join one or more computes to a CML controller, forming a CML cluster. Within the cluster, you can start large topologies that do not fit into a single all-in-one CML instance. The CML controller can dynamically assign nodes to the compute members of the cluster. The cluster controller can place Virtual Machines (VMs) for nodes from a single topology on different computes. During the initial setup of a CML instance, the administrator can choose whether it will be a cluster controller, a cluster compute, or a standalone (non-cluster) instance.

## Benefits

- **Upgrade to Version 2.4, with new clustering feature** that allows horizontal scaling
- **Lower your costs** with virtual equipment for network development and testing
- **Improve your team's productivity** by letting each engineer quickly and easily build and manage their own labs
- **Adopt NetDevOps** by putting Cisco® Modeling Labs (CML) at the center of your Continuous Integration/Continuous Deployment (CI/CD) pipeline for developing and deploying changes
- **Mitigate risk** by trying configuration changes in a robust test environment
- **Reduce lab footprint and save energy** to help meet your green data center goals

## Learn more

[Contact us today](#) to learn more about Cisco Modeling Labs for Enterprise, and prepare your team for real-world work in the field of IT.

Other features in the CML 2.4 version include:

- Multiuser feature to control lab access
- Persistent browser and session
- Table view to search for users by username
- Ability to display link labels in the CML Canvas
- Group membership for each lab in the dashboard list view

## Automate simulations with a scalable platform, comprehensive API

As always, the comprehensive, user-friendly API lets you push configurations to your simulation in an automated way. This means you don't have to guess how the rollout of new configurations will affect your network. And when you've fully tested those scenarios, you can use the same configurations on your production network.

A scalable simulation platform is more scalable than other simulation platforms available today and reduces resource overhead. A lab-based approach lets you build individual labs for different scenarios:

- You can share labs among engineers or keep private labs for individuals.
- You can add devices and change configurations easily in running labs via an intuitive HTML5 GUI.
- Your labs are persistent between runs, so whatever you configured is still there when you start it up again. No more re-entering crypto-keys or certificates.
- The external connectivity model is as simple as a drag-and-drop, with under 5 minutes of configuration to create either a Network Address Translation (NAT) or Bridged connection external to your simulation.

Cisco network platform support is built into Cisco Modeling Labs. Today we support most of the major IOS variants, including IOS, IOS-XRv, and NX-OS. Cisco Modeling Labs also includes utility images, such as Linux hosts, a WAN Emulator, and the Cisco TRex traffic generator. For more information on platform support, visit [www.cisco.com/go/cml](http://www.cisco.com/go/cml).

Simplify your network management team's NetDevOps access today with Cisco Modeling Labs.