

TopoMojo

A VM Topology Manager

HANDS-ON LABS ARE A VITAL COMPONENT OF EFFECTIVE CYBERSECURITY TRAINING. Getting a lab set up and deployed for training, however, can be difficult. Often, getting new ideas up and running for cyber training takes time, and, up to now, there's been no easy way to quickly create and share ideas with other trainers and experts while building labs.

TopoMojo: A Lab Builder and Player

TopoMojo has two major components: a lab builder and a lab player.

Creators who have an idea for a lab can use the builder interface to build it and share it with others. To help you build labs quickly, TopoMojo manages most of the complexity of building a virtual machine through the use of templates. You can choose from one of the existing templates to conveniently create a lab without needing to build a new VM, but you also have the option of creating custom topologies from the ground up with user-provided ISOs and VM specifications. Then, you can conveniently and quickly add machines to your network, put them on the same or separate networks, upload files, and much more. When you're ready, you can share the lab you're building with other creators to get feedback and refine your idea.

TopoMojo's player interface is where you can launch existing labs. After you launch a lab, you can access the various hosts to accomplish your lab objectives. If you want to collaborate with others, you can invite them to your running lab by sharing a link.

Lab Realism

TopoMojo provides the same functionality and connectivity that users would experience with real, physical devices. The network topologies you build using TopoMojo can use IP and Ethernet, but also custom protocol solutions, like 802.11 wireless packet simulation.

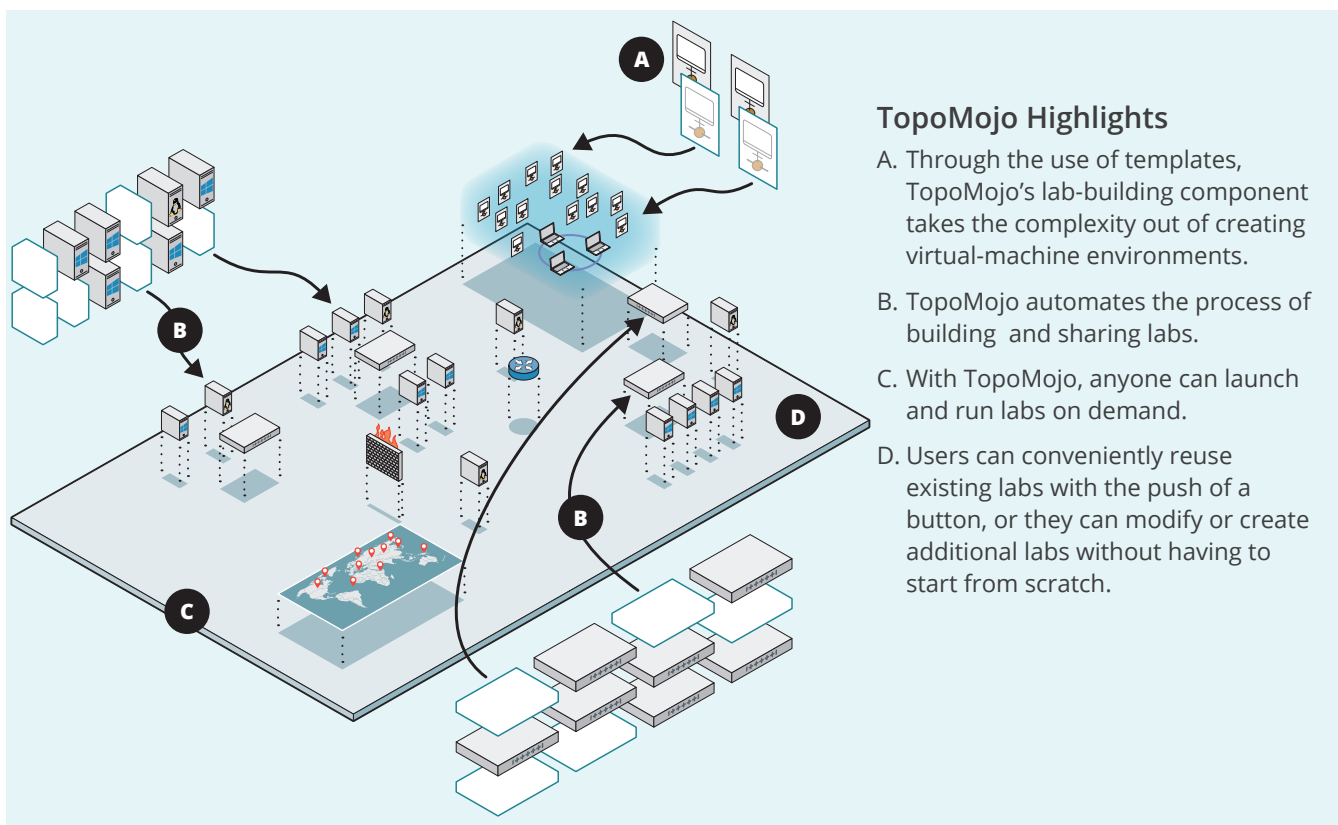
Safe and Secure Research

Because creation spaces and lab "game" spaces are isolated from each other, your environment remains protected. TopoMojo provides the isolation to create a small but separate world where you can experiment or do research without the risk of exposing your production network or your company's network to malicious code you might have running in your labs.

Compatibility

TopoMojo is only compatible with VMware ESXi hypervisors. The TopoMojo server needs to connect with ESXi hypervisors or vCenter to orchestrate the virtual resources. TopoMojo supports virtually all guest systems that run under VMware, including all major operating systems and virtual third-party security appliances.

TopoMojo is compatible with HTML5-compliant browsers. For more information about requirements and deployment scenarios, see the TopoMojo Administrator Guide, which is available with the download.



TopoMojo Highlights

- A. Through the use of templates, TopoMojo's lab-building component takes the complexity out of creating virtual-machine environments.
- B. TopoMojo automates the process of building and sharing labs.
- C. With TopoMojo, anyone can launch and run labs on demand.
- D. Users can conveniently reuse existing labs with the push of a button, or they can modify or create additional labs without having to start from scratch.

Explore Our Tools Online

SEI cyber training tools can be used to create cybersecurity training to help students learn in near-real-world situations without risking organizational assets.

See the latest information about these tools on our website at sei.cmu.edu/go/cwd-tools.

About the SEI

The Software Engineering Institute is a federally funded research and development center (FFRDC) that works with defense and government organizations, industry, and academia to advance the state of the art in software engineering and cybersecurity to benefit the public interest. Part of Carnegie Mellon University, the SEI is a national resource in pioneering emerging technologies, cybersecurity, software acquisition, and software lifecycle assurance.

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