Module 1 Research Assignment #1

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**Cisco Modeling Labs (CML):**

Cisco Modeling Labs is Cisco’s own network simulation tool, similar in purpose to packet tracer in allowing user’s to simulate and virtually create large networks. CML is designed with a more enterprise userbase, meant for allowing testing of automated and manual deployments of networks, less of an educational tool.

**Emulated Virtual Environment - Next Generation (EVE-NG):**

EVE-NG is a network simulation tool which supports a wide-array of different vendor images, including Cisco, Juniper, Palo Alto and Fortinet. It is offered for free through it’s community edition and for professionals for it’s paid edition. It’s tailored towards learning and real-world testing of layouts.

**Graphical Network Simulator-3 (GNS3)**

GNS3 much like the previous examples is a network simulation tool. Unlike the previous two options, GNS3 is completely FOSS. It relies on several underlying technologies like Dynamips, QEMU and VirtualBox. Supporting a smattering of different vendor devices, GNS3 is a fairly good choice for students who are interested in earning CCNA, CCNP or CCIE and require a robust network simulation tool for free.

**Citations:**

Cisco. (2024, December). *Cisco Modeling Labs - Enterprise v2.0*. Cisco. <https://www.cisco.com/site/us/en/learn/training-certifications/training/modeling-labs/index.html>

NS3 Simulation Projects Team. (2023, January 13). *GNs3 Network Simulation*. Ns3 Projects. <https://ns3simulation.com/gns3-network-simulation/>

Patil, A. (2024, May 22). *Understanding EVE-NG: A Comprehensive Guide for Beginners*. [Orhanergun.net](http://Orhanergun.net); [OrhanErgun.net](http://OrhanErgun.net). <https://orhanergun.net/understanding-eve-ng-a-comprehensive-guide-for-beginners>