

NetEmulator™ Launches with Strong Momentum

By Pierre Askmo, CEO, dti Publishing Corporation



The LabHUB™ NetEmulator™

In March of this year, you released version 1.0 of the LabHUB™ NetEmulator™, and in our July issue, we awarded it the “2025 Learning Platform”. Can you give us an update on where NetEmulator™ is now?

When we launched in March, we had static routers, switches, hubs, computers, and access control lists (ACLs). We have now added RIPV2, wildcard masks, and extended ACLs. We are in the process of adding servers and wireless access points in the coming weeks. Further out in February next year, we will release version 2.0 that will add all you need to create meaningful cybersecurity labs.

What is the difference between simulation labs and emulation labs?

Simulation labs imitate how systems should behave using simplified models. In contrast, our emulation labs run a binary-compatible clone of any given device, so the system behaves exactly as it would on actual hardware. This is possible because our network emulation applies the same communication rules to our devices that are used by live routers, switches, or hubs. That means that all the correct answers in real life are accurate in the emulator too (not just a chosen few). This enables the students to perform online the exact tasks that will be required of them on the job.



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Our ultimate objective is to ensure NetEmulator™ provides an immersive, experiential, and interactive experience so realistic that it can be considered equivalent to actual professional experience.

What sets NetEmulator™ apart from other emulators?

That is our focus on educational features, and more specifically, those that help students learn from their errors. Learning by doing is practically always a trial-and-error process. And we often learn the

most long-lasting lessons from our mistakes. That is why in NetEmulator™, we make sure every error is a learning opportunity. Contextual error messages, hints, running logs, animations of packet travel, and self-check (ungraded) questions, as well as real-time completion rates, are some of the features that alert students to where they go wrong and point them in the right direction, allowing them to learn from their mistakes.

We believe that a student mistake is a terrible thing to waste, which is why NetEmulator™ turns learning challenges into hands-on success.

Another unique educational feature is our Mid-term and Final Skills Exams.

The first half of the labs guides students through a structured, hands-on journey of skill-building. Then comes the Mid-Term Skills Exam, a true test of ability, not just knowledge.

Unlike earlier labs, this exam doesn't teach; it challenges. In Challenge Mode, students work independently, no hints, no help, no shortcuts. Success here proves more than understanding; it demonstrates real, job-ready skills.

The Final Skills Exam raises the bar further, assessing the full range of abilities gained throughout the course. Together, these milestones ensure students don't just learn—they master.

The primary goal of these learning tools is to help students learn by doing. The course is lab-centric, meaning the learning journey begins with hands-on experience, not theory.

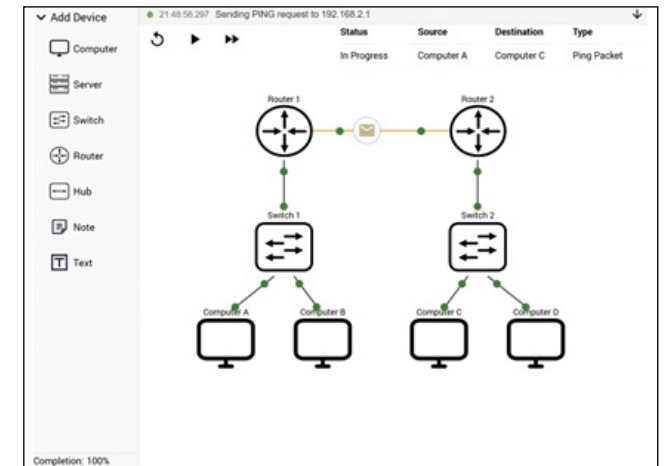
“...a student mistake is a terrible thing to waste - NetEmulator™ turns learning challenges into hands-on success.”

You are releasing an introduction to networking course soon, can you elaborate?

Yes, we are currently developing Fundamentals of Networking Technology – A Skills-Based Approach. This course consists of 10 modules that teach the essential skills needed to operate and manage LANs for small businesses. It also serves as an excellent prerequisite for students preparing for Microsoft Azure or CompTIA Network+ certification studies.

Each module begins with hands-on labs that provide contextual insights linking practical tasks to the underlying theory. Students learn through multiple methods, including thought-provoking questions that encourage reflection, contextual hints to guide problem-solving, and one-click access to the course manual, which directs them directly to the section explaining the concepts behind each lab activity.

NetEmulator™ flips the traditional model on its head. Instead of learning theory first and using labs as reinforcement, students engage in hands-on work that makes the theory come alive. The result is not just understanding, but an immersive experience that helps them feel how a network truly operates.



Following the packet journey – See the running log at the top.

Some network emulators are known to come with a pretty heavy administrative burden. Is that something NetEmulator™ addresses?

Yes, there are a few housekeeping aspects to NetEmulator that address issues commonly encountered with other emulators. One is the heavy download and software installation, as well as the management of versioning, and the other is the support and maintenance efforts widely associated with network emulator software. NetEmulator™ eliminates these time-consuming issues by playing exclusively in the browser. This means no software to manage, either by students or faculty. Another issue faced by many network emulators is the need for updates that deprecate certain functionalities. When that happens, some labs can “break” during the semester. Because NetEmulator runs in the browser, students always work on the latest version (updates don't affect users). Because our updates are always 100% backward compatible, labs remain stable throughout the semester.

Can you elaborate on what will be added in NetEmulator™ Release 2.0?

Sure, the focus of release 2.0 is Cybersecurity. We will therefore be including the following devices: firewall (stateless and stateful), logging, Servers (DNS, DHCP, Web server/client), Packet capture, scanning, monitoring, and our custom AI Assistant, which has been in Beta since October 29th. **ET**

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