

MIMIC Virtual Lab Helps Students At Franklin University

Franklin University's new Computer Networks course has integrated the use of MIMIC Virtual Lab CCNA for providing hands-on Cisco-based labs.

Todd A. Whittaker is a Program Chair for the Information Technology major. As a Program Chair, it is Todd's responsibility to act as a focal point concerning the program within the University and take a leadership role in promoting the program within the community.

When Todd Whittaker decided to start a new computer networking course for both face-to-face and online students, he also wanted to make sure that students receive the necessary hands-on experience along with theoretical knowledge. While purchasing Cisco devices was an option, he didn't want either the expense or the difficulty of scheduling equipment time for 40 to 50 remote students. Additionally, Todd wanted to provide the entire lab setup with Cisco routers and switches for students to practice while they go through the course material. Especially when the students had to perform the assignments, Todd wanted them to actually go through the exercise of setting up, configuration and design of networks. Todd needed a simulation tool that supported all those requirements at a reasonable price. Since students were going to use this tool, he also wanted to make sure that it was error proof and students can reset the configurations whenever they wanted. After researching and looking at different tools, he turned to MIMIC Virtual Lab CCNA from Gambit Communications.

Solution

MIMIC Virtual Lab gave Franklin University students an access to a real world lab environment with a network of Cisco Routers and Switches. Students participate in a hands-on learning experience without buying an expensive, cutting edge Cisco lab, or worrying about remote access to the University lab and sharing.

Students now have the ability to practice Cisco network configuration instead of just reading instructions. They can interact with routers and switches, just like with real devices. Students can also practice different Cisco IOS commands and device configuration. But, moreover, Virtual Lab permits flexible customization and the ability to create entirely new lab configurations.

MIMIC Virtual Lab became a part of the course material.

"MIMIC Virtual Lab is helping us to achieve the educational outcomes we have set for the IT program. Unlike many traditional colleges and universities, Franklin wants its students to apply on the job tomorrow the skills learned in class today and MIMIC Virtual Lab helps us to bridge the gap between theory and practice. Moreover, the people at Gambit Communications have been exceptionally helpful, courteous, and knowledgeable throughout the implementation of this course."



Todd Whittaker, Program Chair, Information Technology

Franklin University

For more than 100 years, Franklin University has been a pioneer in meeting the needs of busy working adult students who juggle work, family and many other responsibilities. Franklin offers a high-quality, accessible, and affordable education. Based in Columbus, Ohio, USA, Franklin serves more than 11,000 students annually from all across the country and around the world.



MIMIC Virtual Lab Simulating Cisco Routers and Switches

The Technology – MIMIC Virtual Lab CCNA

Award winning MIMIC Virtual Lab is for beginners interested in familiarizing themselves with the complex environment and for intermediate or expert users looking to sharpen their skills and move to a higher level.

MIMIC includes a lab with Cisco Routers (2811, 3640 and 7206) and Cisco Switches (2950, 3550 (2) and 6500) connected with LAN, WAN, ISDN and Serial links.

Students can Telnet in to any of these devices as if they are connecting to real devices. Then they can use a large set of IOS Commands to different operations, e.g. Logging in/out, Get into different modes - User, Privileged, Configuration and Interface, Set passwords, IP/IPv6 addresses, clock rates, hostname and bandwidth, Assign routing protocols - RIP, IGRP, EIGRP, BGP, OSPF and IS-IS, Ping other devices in the lab, Save/load configurations, Boot using flash or TFTP protocol, Configuration of VLAN, ISDN, CDP, PPP, Frame Relay ACL and NAT protocols and many other functions required for network training and Cisco certifications.

Each device in the simulated lab also has Exercises and Tutorials connected to it to help perform many different configurations.

The Benefits

Students have a private Virtual lab to practice along with the course material. With the use of MIMIC, practice drills and assignments provide a safe environment to practice without worrying about bringing down any equipment/network and affecting other users.

Now students will be able to have the hands-on experience needed in a competitive job market. More importantly, they will have a solid confidence about going into the real world, and setting up and configuring networks. MIMIC Virtual Lab, as a part of the course curriculum, represents a cost-effective tool which they can use in privacy of their home or work.

Since every student has their own lab, Franklin University does not need to invest in a facility with equipment costing tens of thousands of dollars.

The Course

ITEC 275: Computer Networks: Switching, Routing/WANs. This is a 15 week distant learning course. It is expected that more than 120 students will attend this course annually.

This course covers both the design and basic configuration of computer networks. Using Cisco Systems CCDA® certification as a guide, students will learn about the OSI model, network topologies, Wide Area Network (WAN) technologies, wireless LAN, IP addressing, routing protocols, and network security mechanisms. This course also utilizes simulation software (MIMIC Virtual Lab) to create a small virtual network on the student's personal computer running Windows XP or Vista. This provides the student interactive configuration experience with the Cisco Systems Internetworking Operating System (IOS) in an isolated environment.

Todd Whittaker's goal is to also offer this course in a class room setting.

www.gambitcomm.com



For more information, please contact Gambit: info@gambitcomm.com

