

17-18 MSFT SUMMARY REPORT:

- [#17.22](#) Networking & Security Lab

Provide a summary report of your submission and how MSFT funding has helped improve resources and experiences for students at CI. If your submission has a sustainability element, how has this contributed to CI's sustainability efforts?

Feel free to add photos.

The MSFT funding was requested to purchase professional quality equipment and software for the new Networking and Security Lab (SIE 1131). The items that were purchased include Palo Alto firewalls, wi-fi routers, Cisco IP phones, servers and memory, forensics professional software, network cable testers, rack-mount consoles, USB flash drives, and some other minor items (cables, connectors, etc.) As a result, the students obtained a wide selection of networking equipment, most of which have been installed in the 8 tall rack cabinets present in SIE 1131; please, see the attached photo. These cabinets were empty before.



A view of one of the 8 rack cabinets in SIE 1131 filled with the equipment purchased from the grant.

The new equipment was already used in part in Fall 2017 and mainly in Spring 2018 in the Computer Networking course (COMP 429). The hands-on experience with a variety of networking equipment was very rewarding for the students. Instead of complaints about outdated equipment that appeared in previous SRTs, the students were now expressing their appreciation for the practical labs with quality equipment; for example, the rating of the lab in COMP 429 in Spring 2018 was all 5s.

A brief survey was taken in May 2018 to assess how the students perceive working with the new equipment. The results of the survey were very positive; here are some testimonials: "I believe all the equipment was exceptional."

"Definitely interfacing with the Cisco routers and switches was valuable knowledge. By working with this equipment, I have a better idea about what to expect in the future when I move into the professional environment. Should I choose to go down the path of networking, the experience I gained working with the routers and switches will be incredibly useful."

"The equipment used is exactly the same as one might find in an enterprise I.T. setup, and knowing Cisco systems and general principles behind the networking devices is extremely important when attempting to attain a first job."

"I would say that the experience that we gained in this working with hardware is the most valuable, at CSUCI there seems to be very little attention spent with hardware in the curriculum so this was a great opportunity to be introduced to hardware and some of the real world experiences we may have to deal with"

Provide a summary of the status of your budget. Were you within budget? Was the entire allocation spent by end of FY? Overspent? An extension requested due to scope/materials change?

Out of \$42,700 planned, the total amount of \$29,267.27 was spent. The reason for the failure to spend \$13,432.73 is that there was an issue with a vendor of servers after everything was approved with IT and Purchasing department, and there was already too little time to go through the entire purchasing procedure again.

Final Comments?

The project successfully contributed to improving the quality of hands-on experience of students that use the Networking and Security Lab in their courses. Starting with Computer Networking, the equipment and software purchased is useful for this and potentially other courses in the future.

Additional Statements:

Small stickers with acknowledgment were affixed to the equipment purchased from the MSFT funds. Additionally, a larger acknowledgment was placed in the classroom; please, see the attached photos below.

