## ILLINOIS STATE University

## **BOARD OF TRUSTEES**

<u>Resolution No. 2023.10/51</u> <u>Approval of Campus-Wide</u> Network Upgrade Phase II

## **Resolution**

Whereas, the current network infrastructure supporting the Illinois State University campus network is approximately ten (10) years old, is approaching the lifecycle end of vendor specific support, and must be upgraded to continue supporting critical university research, teaching, applications and business functions, and;

Whereas, the requested campus network upgrade will provide the Technology Solutions staff an opportunity to implement advanced designs that will increase reliability, efficiency, security, and visibility of the network that supports critical network functions, and;

Whereas, the requested campus network upgrade will also significantly increase the network speed and bandwidth capacity for end users, and;

Whereas, the requested campus network upgrade will be implemented in a strategic, multi-phase project spanning the next four years, as well as providing the support for a future wireless network upgrade as new cost-effective technology enhancements surface over the next ten (10) years, and;

Therefore, be it resolved that the Board of Trustees authorizes total expenditures not to exceed \$1.25 million for the necessary hardware, software, and support costs to upgrade the campus-wide networking equipment under Phase II.

Board Action on:			Postpone:	
Motion by:			Amend:	
Second by:			Disapprove:	
Vote:	Yeas:	Nays:	Approve:	
			ATTEST: Board Action,	October 13, 2023

Secretary / Chairperson

## Board of Trustees Illinois State University Supplemental Information for Approval of Campus-wide Network Upgrade Phase II

In May of 2022, the Board of Trustees approved Phase I of a multi-year campus-wide network upgrade. Technology Solutions is requesting Board of Trustees approval to continue with phase II replacement of the current campus networking equipment to support Illinois State University's classroom and administrative buildings, and Internet bandwidth needs. The current equipment was purchased between 2010 and 2013, and while it has performed well it is nearing the end of its useful life and vendor specific support.

The requested software and hardware equipment upgrade will provide the ISU community with not only increased reliability, efficiency, and security, but also faster network speeds with the ability to scale up in later years in order to meet new demands. The new strategic design of such systems includes core infrastructure pieces that have a planned useful life of approximately ten (10) years to avoid costly shorter refresh cycles.

The total number of network-connected devices, applications, and data resources supported by ISU's network has increased significantly over the last decade and is expected to continue to grow exponentially. Continued investment in and growth of the campus network is required to support the demands of existing and new initiatives and academic programs such as cybersecurity, research, eSports, nursing, engineering, and public safety/security cameras, while also maintaining the level of service expected by members of our community.

This resolution supports the 2nd phase of a strategic multi-year (3 phase) upgrade project designed by Technology Solutions staff. The tentative schedule of buildings (31 in total) included in this  $2^{nd}$  phase is the following:

Fell Hall	Edwards Hall	
DeGarmo Hall	Cook Hall	
Schroeder Hall	State Farm Hall of Business	
Fairchild Hall	Rachel Cooper	
Metcalf Lab School	Moulton Hall	
Honors Program Building	Honors Program Annex	
Multicultural Center	Heating Plan	
Julian Hall	Warehouse Road Complex	
Campus Recreation Office	Center for Civic Engagement	
Redbird Activity Center	Ewing Manor	
Golf Pro Shop	Nite Ride Building	
Old Union Building	Parking Garage South	
Parking Services Building	South Campus Power Plant	
South East Chiller	Risk Management Building	
308 Kingsley Street	Hudelson Building	
Office of Sustainability		

The Board of Trustees approved expenditures not to exceed \$1.25 million for the first phase of this project. Actual cost of equipment was \$1.06 million. Despite continued supply chain delays related to receiving equipment, the first phase is still expected to be completed by December 2023/January 2024.

It is expected that the 3<sup>rd</sup> phase will be brought forth for potential BOT approval in the fall of 2024. The current estimated cost of completing all three phases is \$3.75 million over the next four years and will reach some 60 buildings.

Approval of the Campus Network Upgrade project will further enhance the University's competitive advantage and support Educate•Connect•Elevate Goal I.D.5, to "Ensure a safe and secure physical and virtual environment" as well as Goal II.C.3 to "Utilize technological solutions that enhance productivity and creativity." It will also serve as a critical component of the University's next-generation technology infrastructure as an upgraded campus network is a core building block for ISU's digital transformation efforts to better meet campus business needs through the use of modern technology. Of note, this upgrade will increase the bandwidth capacity for endpoint devices – allowing for faster speeds which will be needed to

effectively support data-driven applications such as personalized learning, institutional reporting and analytics, augmented reality and virtual reality, artificial intelligence, and Internet of Things (IoT) projects.

Additional value to the campus from this network equipment upgrade project include increased flexibility when enhancing our data security through better integration with existing on-campus services to improve overall security for applications and data stored in ISU's data centers. These enhancements provide options to incorporate network segmentation for better data protection, and software defined networking for enabling more efficient management and performance of the network.

In summary, this upgrade will provide the flexibility, scalability, and future-proofing required to support the application and data requirements of ISU for years to come. The campus has set a vision to "*remain a national leader and be recognized world-wide for educating high-achieving, motivated students who seek an individualized and transformative experience.*" Having technical resources that support that vision are critical for success. As such, it is important that the technology in these facilities remains updated.

This 2<sup>nd</sup> phase of the upgrade project is estimated to not exceed \$1.25 million and should be completed by December 2024.

Source of Funding: General Revenue Funds, AFS Revenue Resources, Agency Funds