



## **OP 30.04: NETWORK INFRASTRUCTURE**

### **PURPOSE**

The network infrastructure at Mississippi State University has evolved into a large, complex environment over which the education, research and business of the University is conducted. The network integrates voice, data, video, security, e-commerce and wireless applications into a powerful, unified information technology resource upon which our students, faculty and staff depend.

The elements of our network infrastructure include:

- The outside network cable plant (e.g., fiber-optic cable, copper twisted-pair cable, and associated electronics)
- Building network cabling systems (e.g., wiring closets, data and telephone cable and faceplates)
- Network electronic components (e.g., switches, routers, hubs, repeaters and transmission equipment)
- Network protocols, services, addressing and naming conventions (e.g. IP, DHCP, DNS, SNMP, H.323)
- Security and authentication services (e.g., firewalls, LDAP, PKI, CAS Active Directory)
- Wireless networking (e.g., indoor and outdoor access points)
- ID Card systems (e.g., card readers, access control applications, and card production systems)
- External network connections (e.g., Internet, Internet2, the Public Switched Telephone Network, and VoIP)

The size, complexity, and mission-critical role of the network demand adherence to a centralized, coordinated strategy for planning, implementation, operation and support. Such a strategy is necessary to protect the future reliability, maintainability and viability of this critical asset.

### **POLICY**

The university will have an institution-wide strategy for maintaining and enhancing the network infrastructure with Information Technology Services (ITS) having overall responsibility for planning, setting of standards, implementation, operation, and support of the infrastructure. Implicit in this responsibility is the authority of ITS to take necessary preventative and remedial steps to ensure the operational integrity of the network and underlying infrastructure.

It is the goal of the university to have in every university building an appropriately networked data infrastructure that is consistent with the standards and practices of the institution. New

building construction and major building renovations will include funding for a fully networked data infrastructure. For existing buildings, infrastructure plans will be developed and all network enhancements, regardless of source of funds, will be consistent with those plans.

Exceptions to this policy may be granted by the President.

## **PROCEDURE**

For *new buildings and buildings undergoing major renovation*, the following procedure should be followed:

- During budget planning, representatives of Information Technology Services will meet with the building occupants and the architect to develop a budget allocation consistent with the networking needs of the building. This budget estimate will be changed in the final budget only with an approved modification of the planned network infrastructure.
- As the detailed design of the building is developed by the architect, Information Technology Services will continue to work with the architect and the building occupants to develop the detailed specification of the building network. This includes wiring, electronics, location and size of wiring closets, location and nature of connections for use within the building, and connectivity to the university's backbone.
- ITS staff will participate in overseeing the installation of the network and in inspections involving components of the network infrastructure.
- Once accepted, ITS will assume operational responsibility of the network infrastructure (but not, without special arrangements, the end-user facilities).

Individuals, departments, or other departments wishing to enhance the *network infrastructure in an existing building* must first contact ITS. ITS will coordinate the overall project with other university units, e.g., Physical Plant. One-time and recurring costs and funding sources will be identified, as appropriate, during the planning phase.

## **REVIEW**

This policy will be reviewed at least every four years by the Chief Information Officer with recommendations for revision presented to the Provost and Executive Vice President.

**REVIEWED BY:**

/s/ Steve Parrott  
Chief Information Officer

08/01/2019

/s/ David R. Shaw  
Provost and Executive Vice President

08/02/2019

/s/ Timothy N. Chamblee  
Assistant Vice President and Director  
Institutional Research and Effectiveness

08/06/2019

/s/ Joan Lucas  
General Counsel

08/07/2019

**APPROVED:**

/s/ Mark Keenum  
President

08/22/2019