NETWORK INFRASTRUCTURE MANAGEMENT AND STANDARDS
07.200.03

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Source of Authority:	UNC System Office Policy Manual, Chapter 1400 "Information Technology" International Organization for Standardization ISO/IEC 27002
Responsible Office:	Information Technology Services

I. Purpose

This document provides policies and standards for the responsible management and administration of the UNCW's information technology network infrastructure. This is not a comprehensive document covering all aspects of responsible network management.

ITS manages the network infrastructure including wiring and cabling, equipment rooms, core systems supporting telecommunication services, data communications services (wired and wireless), cable TV, contract services, and coordination of commercial antennas installed on campus.

Strict control must be maintained over the network infrastructure to prevent tampering or accidental damage leading to an outage or breach. Network infrastructure wiring and equipment rooms must be in compliance with applicable codes, standards and meet university specifications as contained in the "ITS Standards for Installation of Infrastructure/Network Communications".

All network infrastructure, services and facilities shall be provided and/or coordinated through ITS.

II. Policy

The network infrastructure comprises mission critical resources that are utilized by all members of the campus community. It is essential, therefore, these resources are standardized, maintained, and secured to ensure maximum availability, accessibility, and operational efficiency.

A. Network Infrastructure Planning

1. ITS establishes and maintains standards for network infrastructure and pathways, wiring and cabling, support systems and facilities and related items for the network infrastructure. These standards apply to existing installations, renovations, and new construction.

2. ITS shall review plans and participate in the inspection of all network wiring installations for new buildings and renovations. All wiring installations shall comply with North

Carolina state building codes regarding firewall penetration, plenum wire specifications, etc. and must be approved by the Office of Facilities.

B. Device Registration and Address Allocation

1. All computers/devices on the network infrastructure must be registered with an accurate and unique IP address assigned by ITS.

C. Network Hardware/Software (Routers and Switches)

1. The physical network standard on campus is exclusively Ethernet, IEEE 802.x. The wireless network adheres to the Wi-Fi 5 standard.

2. The connection of any networking device (router, firewall, VPN, WAPs, etc.) to the network infrastructure without the prior knowledge and expressed permission of ITS is prohibited and subject to be disconnected without notice.

3. The standardization of networking technology decreases integration problems and increases ITS's ability to provide a flexible, robust, and integrated network providing optimal network connectivity, reliability, and security. Standardization also provides for a seamless integration of data, voice, and video, and heightens quality of service and network resilience. The university has standardized on hardware and the inherent software that operates this hardware for both the wired and wireless networks.

D. Physical Infrastructure

1. Ensuring the management, maintenance, proper functionality, reliability, and accessibility of the network infrastructure wiring and facilities is the responsibility of ITS.

2. Access to manholes and rooms containing network infrastructure equipment, conduit, or wiring is strictly controlled. No one may enter such areas without prior authorization; and, likewise, no equipment may be placed in these areas without prior authorization. Additionally, no combustible materials may be stored in network infrastructure facilities because of fire code requirements. Office of Facilities employees are authorized to enter network infrastructure closets in the normal course of discharging their assigned responsibilities.

3. Existing network infrastructure wiring may not be altered by anyone without proper authorization from ITS.

4. Unauthorized wiring found in network infrastructure spaces or campus buildings is subject to removal by ITS.

5. Unauthorized wiring that interfaces with network infrastructure wiring or services shall be reported to ITS for review. Unauthorized wiring, that is determined to be either a safety hazard, not in conformance with applicable codes and standards, or detrimental to the security and functioning of the network communications systems shall be removed.

6. In buildings that do not meet current standards, existing network infrastructure may remain

until building or space renovations are completed unless it is determined by ITS and Office of Facilities to be a safety hazard.

E. Network Security

1. ITS has the authority to monitor network infrastructure to ensure security. Any form of software that explores, "sniffs", or probes the network for any reason is strictly prohibited. ITS tests and investigates actions or conditions that pose risks to network security and will take corrective and/or protective measures as necessary to ensure the continued proper function of the network infrastructure.

2. ITS actively monitors the network infrastructure for intrusion. Any entity identified as a potential unfriendly host is denied access to the campus network immediately and reported to the proper authorities for further investigation and subsequent action.

3. ITS manages and configures the campus firewall and intrusion prevention systems.

4. The guest wireless network is available for parents, vendors, and other guests of UNCW that are on-campus to conduct business related to the university and is only to be utilized in strict adherence to all university policies. The guest wireless network has restrictions in place to ensure the security of campus systems.

5. Establishing, enabling, or providing network services that interfere with the normal operation of the campus communications networks or users of the network, or that create security risk and exposure are prohibited.

6. All wireless communications must be encrypted unless approved by ITS.

F. Standards

Standards for network infrastructure are essential in order to ensure manageable, sustainable, secure, and accessible resources that are shared by the campus community. Development and administration of these standards is the responsibility of ITS. These standards are consistent with and complement standards established by appropriate external agencies such as industry governance, standards bodies, and the University of North Carolina System Office.

These standards are maintained and administered by ITS in collaboration the Business Affairs Division. Renovation and construction projects shall reference these policies and standards for design and construction of campus facilities. Copies of the standards are available through ITS.

> UNCW ITS Standards for Installation
> UNCW ITS Network Communications Standards

The standards referenced above are reviewed by and incorporated into university renovation and construction processes administered by the Business Affairs Division.