

Effective: January 10, 2002
Responsible Office: CIO
Policy Title: **Wireless Deployment and Management Policy**
Approved: *IT Council*
Purpose: Outlines the structure and parameters for wireless technology on campus.

A. Rationale and Purpose of Policy:

To ensure the technical coordination required to provide the best possible wireless network for the University of Colorado at Boulder (CU-Boulder), the campus' Information Technology Services (ITS) will be solely responsible for the deployment and management of 802.11 and related wireless standards access points on the campus. No other departments may deploy 802.11 or related wireless standards access points without coordination with ITS.

This policy provides the structure for a campus-wide solution for the implementation of wireless technology, which includes centralized determination of identity and authentication to the end of the provision of the appropriate levels of security.

Wireless technology is by nature easy to deploy, but highly sensitive to overlapping frequencies. Because of these characteristics, all wireless use must be planned, deployed, and managed in a very careful and centralized fashion to ensure basic functionality, maximum bandwidth, and a secure network.

Current 802.11 wireless technology deploys a very low power signal in a frequency band divided into only three non-overlapping channels. The primary purpose of these channels is not so much to provide separate networks, but to ensure that adjacent access points with slightly overlapping areas of coverage do not interfere with each other. In the normal case, it is necessary to use all three channels in an integrated fashion as a single unified network in order to achieve an optimal design. It is therefore not feasible to allow individuals to install their own access points without centralized coordination, due to the resulting signal interference and greatly degraded performance to the common wireless network.

B. Scope:

The Wireless Policy provides guidelines regarding the following:

- The central deployment by ITS of 802.11 and related wireless standards access points.
- The provision of wireless service by ITS for campus departments.
- The management by ITS of 802.11 and related wireless standards access.

C. Policy:

1. ITS deployment of 802.11 and related wireless standards access points

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standards access points on the campus. No other departments may deploy 802.11 or related wireless standards wireless access points without coordination with ITS.

2. Provision of wireless service by ITS

ITS will offer a standard wireless deployment plan that will meet the needs of most CU-Boulder departments wishing to construct and operate departmental wireless services. Departments requiring a different wireless deployment plan may contract with ITS to have ITS construct and operate either a standard or, if the spectrum is available for it, premium wireless services. ITS will work with departments to accommodate any special needs they may have within the technical constraints of the wireless technology, understanding that all requests may not be technically feasible.

3. Management by ITS of 802.11 and related wireless standards access points

ITS will ensure that all wireless services deployed on campus will adhere to campus-wide standards for access control. ITS will manage the wireless spectrum in a manner that ensures the greatest interoperability and roaming ability for all departments wishing to use wireless technology and, using the Enterprise Directory, will centralize the process of determining identity, authentication, and appropriate levels of security for access to and use of wireless technology. ITS reserves the right to minimize interference to the common wireless network, and will work with departments to reconfigure or shut down any departmental wireless networks that interfere with the common wireless network.

D. Procedures and Guidelines:

ITS will advise IT Council on wireless plans, deployment strategies, and management issues.

Any department wishing to work with ITS to deploy wireless access must contact ITS by phoning 5-HELP to begin the process. Departments must also ensure that hardware and software purchased adhere to published campus standards (www.colorado.edu/its/hardwaresoftware).

Departmental wireless networks will be treated as alliance networks as defined in the Network Security Policy; this requires a formal agreement between ITS and the department.

In the case of existing wireless technology deployments that use the same or interfering spectrums, ITS will work with the departments in question to minimize interference to the common wireless network.

All sensitive data being transmitted across a wireless network should be encrypted.

Additional guidelines and best practices relating to the deployment and use of wireless technologies can be found at www.colorado.edu/its/wireless.

E. Responsible Organization:

The CIO Office will be responsible for this policy and for any appeals of ITS decisions relating to wireless deployments.