

Effective: January 2013
Responsible Office: Office of Information Technology
Policy Title: **Wireless Deployment and Management Policy**
Approved: *Associate Vice Chancellor for IT and CIO*

Purpose: Outlines the structure and parameters for wireless technology on campus.

A. Rationale of the Policy:

To ensure the best possible wireless data network and provide the technical coordination required for the University of Colorado at Boulder (CU-Boulder), the Office of Information Technology (OIT) will be solely responsible for the deployment and management of 802.11 and related wireless standards-based access points (aka, Wi-Fi) on campus. No other departments, groups, or individuals may deploy 802.11 or related wireless standards-based access points without approval and coordination with OIT.

Background:

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

Wireless technology, is by nature easy to deploy, but highly sensitive to overlapping frequencies and radio frequency interference sources. Because of these characteristics, all wireless use on campus must be planned, deployed, and managed in a 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 a limited number of 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 these limited channels in an integrated fashion as a single unified network in order to achieve an optimal design. It is therefore not feasible to allow departments, groups, or individuals to install their own access points without centralized coordination, due to the resulting signal interference and greatly degraded performance to the campus wireless network services.

B. Scope:

This policy applies to the following:

- Central deployment and management by OIT of 802.11 and related wireless standards-based access points.
- Provision of wireless service by OIT for campus departments and groups.

C. Policy:

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

OIT will be solely responsible for the deployment and management of 802.11 and related wireless standards based access points on the campus. No other departments, groups or individuals may deploy 802.11 or related wireless standards based wireless access points without approval from and coordination with OIT.

2. Provision of wireless service by OIT

OIT continues to offer a standard wireless deployment plan that meets the needs of most CU-Boulder departments and groups wishing to construct and operate departmental wireless services. Departments and groups requiring a different wireless deployment plan may contract with OIT to have OIT construct and operate either a standard or, if the spectrum is available for it, premium wireless services. OIT will work with departments, groups or individuals 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 OIT of 802.11 and related wireless standards access points

OIT will ensure that all wireless services deployed on campus will adhere to campus-wide standards for access control. OIT will manage the wireless spectrum in a manner that ensures the greatest interoperability and roaming ability for all departments wishing to use wireless technology. OIT will centralize the process of determining identity, authentication, and appropriate levels of security for access to and use of wireless technology. OIT reserves the right to minimize interference to the campus wireless network, and will work with departments, groups or individuals to reconfigure or shut down any wireless networks that interfere with the campus wireless network. OIT reserves the right to minimize interference to the campus wireless network and will work with departments, groups or individuals to minimize or remove non-Wi-Fi compliant devices that interfere with the normal operation of the campus wireless service.

D. Procedures and Guidelines:

Any department, group, or individual wishing to deploy wireless access points must contact OIT.

In the case of existing 802.11 wireless technology deployments, OIT will work with the departments in question to minimize interference to the campus wireless network.

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

Additional guidelines and best practices relating to the deployment and use of wireless technologies can be found at www.colorado.edu/OIT/wireless and <https://www.cu.edu/policies/aps/it/6005.pdf>.

E. Responsible Organization:

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