

Instructional Scenario

Setting up a SOHO Network



Course/Duty Area: Information Technology Fundamentals/Exploring Network Fundamentals

Scenario:

You have been hired to install and set up the necessary hardware for a small office home office (SOHO) network, including wireless application protocol (WAP) access, encryption, passwords, and firewalls.

Placement of the WAP must allow for maximum coverage across the entire office area. The wireless part of the network will also need a guest network for clients/customers to have access that is separate from the main employee/business network.

The network should use the latest encryption standards and the firewall must have all unnecessary and unencrypted ports blocked.

Big Question:

How would you approach setting up a new network for a small business?

Focused Questions:

- Did you place the router/WAP in an area that provides maximum coverage?
- Did you give the network a name? Did you enable or disable service-set identifier (SSID) broadcast?
- Did you separate the guest and main networks?
- Is the latest encryption standard being used?
- Did you disable/block all unnecessary or unencrypted ports?

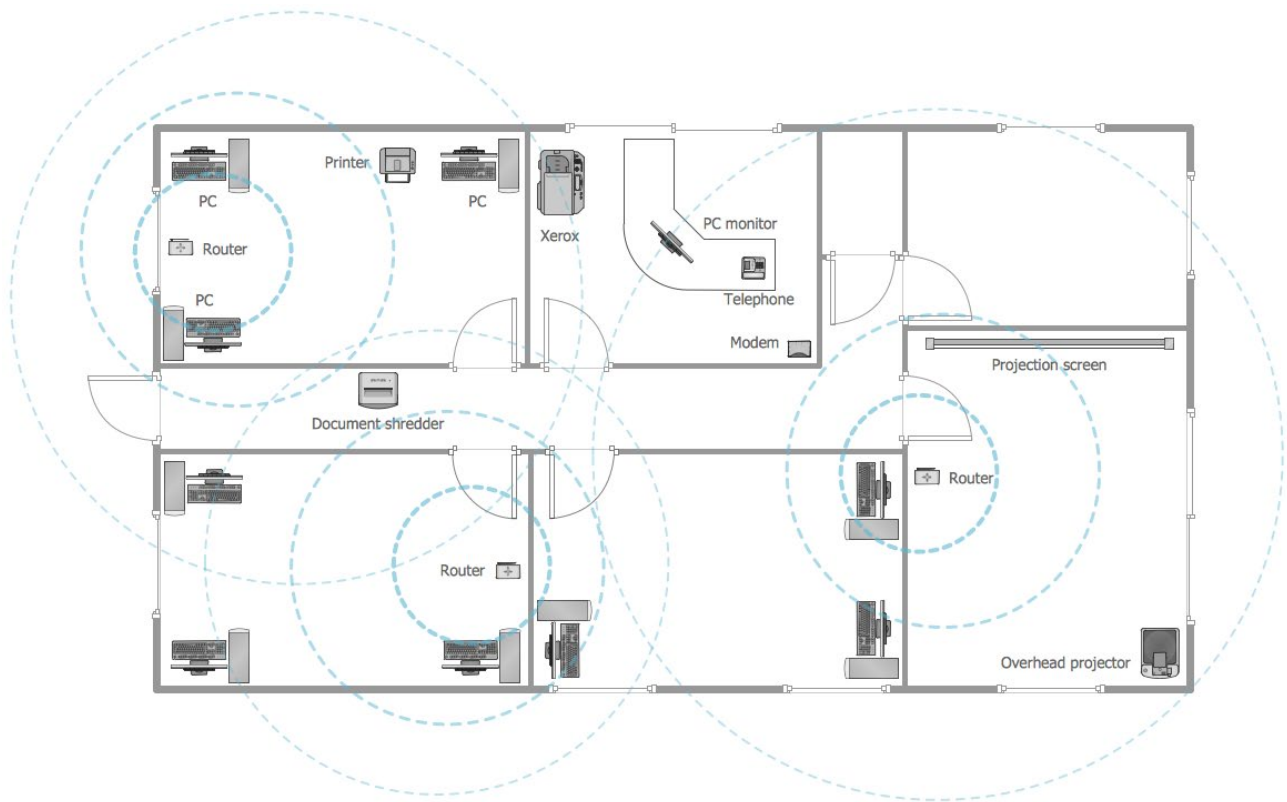
Student Project or Outcome:

Students should be able to draw, map out, or otherwise show an office area where the SOHO network will cover. Students should also label each device appropriately, along with the various areas of the office (e.g., waiting area, offices, employee lounge). On a separate document, the students should be able to write out the settings used for the network, including the WAP SSID, password, encryption protocol, firewall status and rules, and guest network name.

Note: This is best used as a project over at least two-hour long class periods but can be extended as needed depending on teacher discretion.

Teacher Resources:

See example diagram below.



Scenario submitted by Adam Cotton, Colonial Forge High School, Stafford County Public Schools