Lab 11.1.4 Basic Troubleshooting on AP

Estimated Time: 10 minutes

Number of Team Members: Students will work in teams of two.

Objective

In this lab, the student will utilize basic troubleshooting procedures for problems with an AP.

Scenario

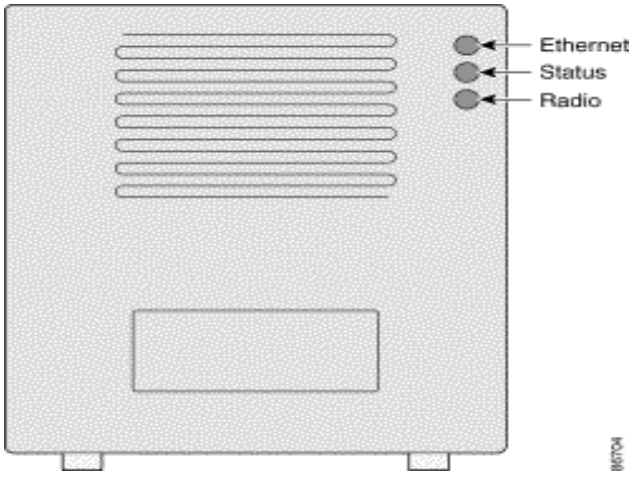
Troubleshooting networks, including WLANs, is more important than ever. Networks continue to add services as time goes on and with each added service comes more variables involved in implementing networks. This adds to the complexity of troubleshooting the networks as well. So, organizations increasingly depend on network administrators and network engineers having strong troubleshooting skills.

Tools and resources

The following tools and resources will be helpful with this lab:

- AP properly installed and configured on a wired LAN
- PC with a properly installed wireless NIC and client utility

Step 1 Check the top panel indicators



a. If the AP is not communicating, check the three indicators on the top panel. These indicators can be used to quickly assess the status of the unit.

b. The indicator lights have the following meanings:

c. The Ethernet indicator signals traffic on the wired LAN, or Ethernet infrastructure. This indicator blinks green when a packet is received or transmitted over the Ethernet infrastructure.

d. Is the Ethernet Indicator light blinking on your AP? Yes or No

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e. The Status indicator signals operational status. Blinking green indicates that the AP is operating normally but is not associated with any wireless devices. Steady green indicates that the AP is associated with a wireless client.

f. Is the status of the AP associated or not associated?

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g. The Radio indicator blinks green to indicate radio traffic activity. The light is normally off, but it blinks green whenever a packet is received or transmitted over the radio of the AP.

h. Is there radio traffic on your AP? Yes or No

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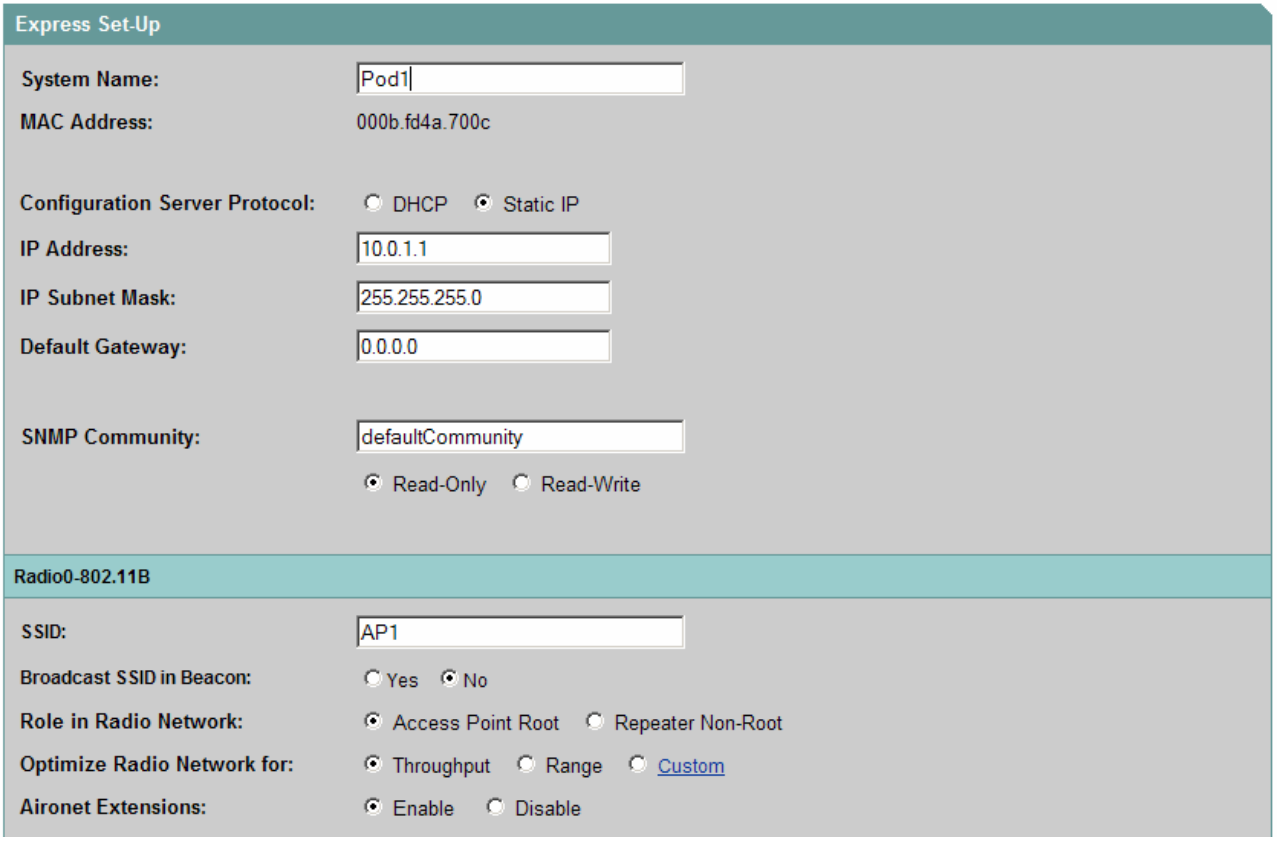
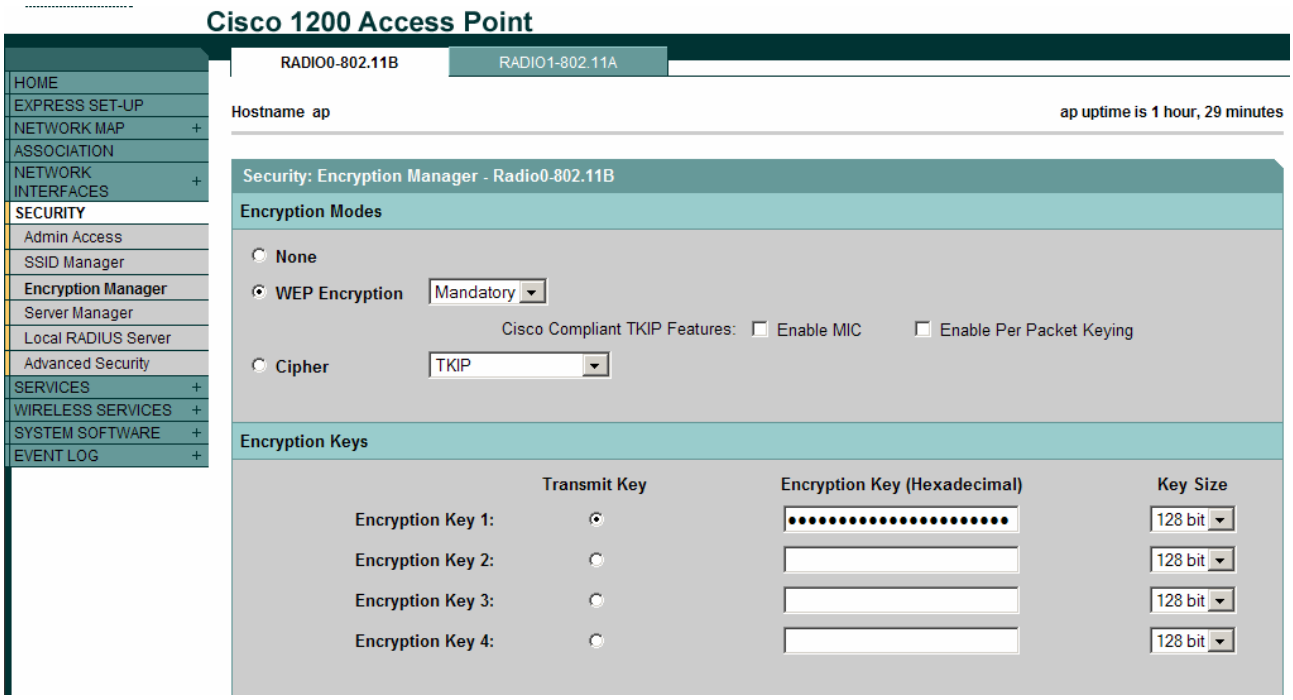
Step 2 Check the basic settings



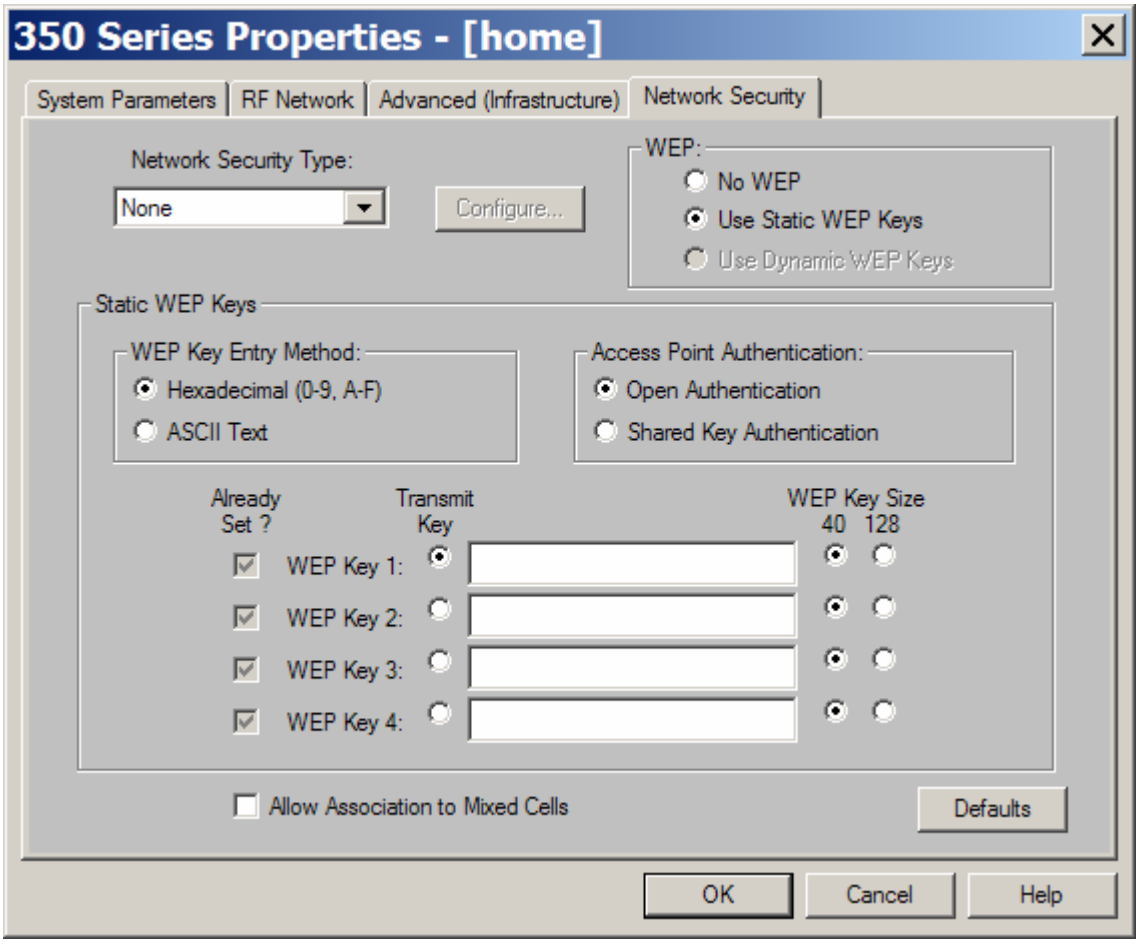
a. Check the Service Set Identifier (SSID) of the AP and client. Mismatched basic settings are the most common causes of lost connectivity with wireless clients. Wireless clients attempting to associate with the AP must use the same SSID as the AP.

b. Verify authentication is set to **Open** on the AP and client. Shared Key exposes the Wired Equivalent Protocol (WEP) key unnecessarily due to weaknesses in design.

Step 3 Check the WEP key



a. The WEP key used to transmit data must be set up exactly the same on the AP and any wireless devices with which it associates. Make sure to enter the key in hexadecimal on the client and AP.



b. If there is a possibility that the AP WEP Key and the Client Adapter WEP Key are not congruent to each other, reset the WEP setting to the default configuration or overwrite the current WEP Key.

c. If the password that allows the AP to be configured is unknown, or if major changes to the configuration need to be made, the configuration may need to be completely reset.

