Lab 2.6.5.2 Using ADU Utilities

Estimated Time: 10 Minutes

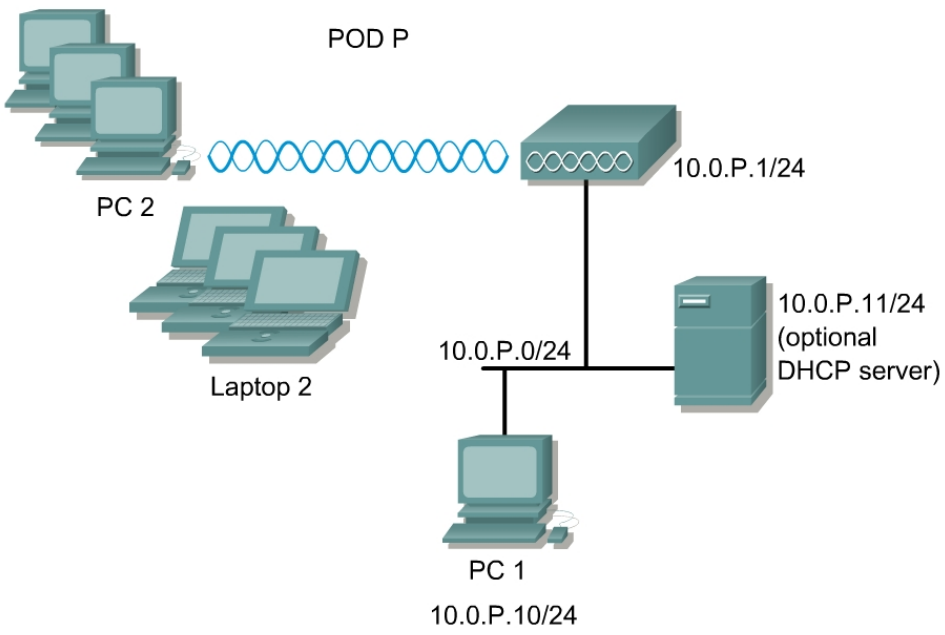
Number of Team Members: 2 students per team

Objective

Students will use the Aironet Desktop Utility (ADU) to complete the following tasks when using a Cisco Aironet IEEE 802.11a/b/g Wireless Adapter:

- Assess the performance of the Radio Frequency (RF) link
- View the general and advanced transmit/receive statistics
- View the adapter information
- Run and analyze troubleshooting reports

Topology



Scenario

The ADU provides tools that enable a wireless technician to assess the performance of the client adapter and other devices on the wireless network. ADU diagnostic tools perform the following functions:

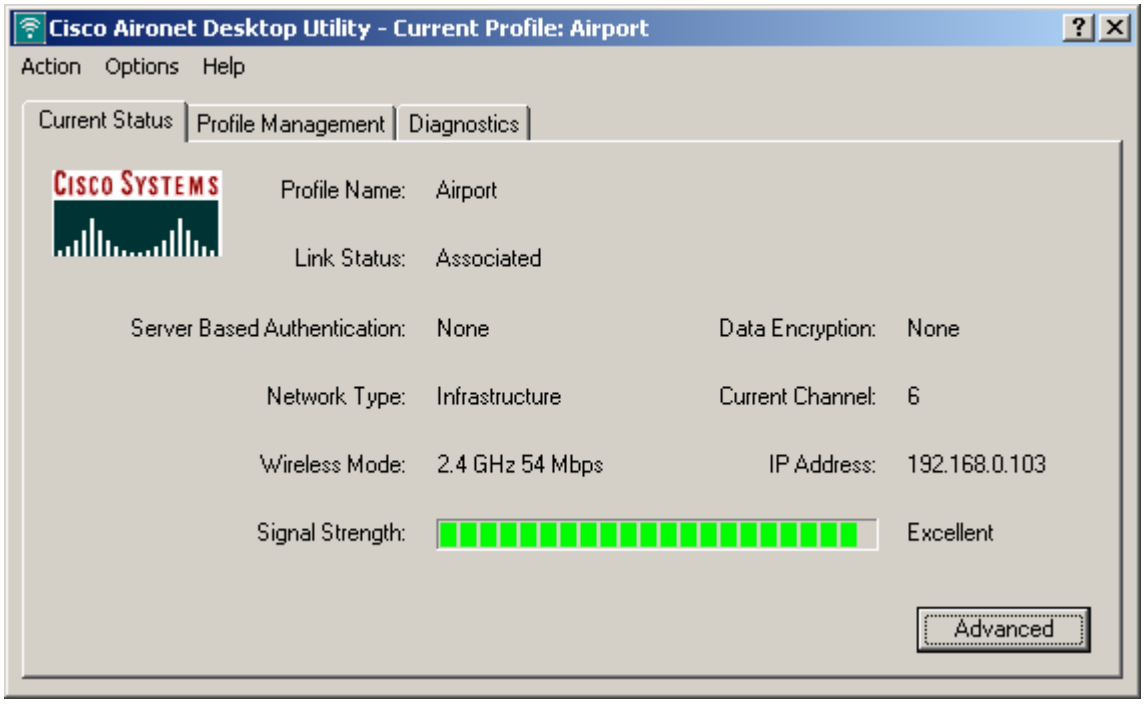
- Display the current status and configured settings of the client adapter
- Display statistics pertaining to the transmission and reception of data of the client adapter
- Display a graphical image of the client adapter RF link
- Run an RF link test to assess the performance of the RF link between the client adapter and its associated AP.

Preparation

The instructor will prepare one AP that will be used by the whole class to perform this lab exercise. An IP address and SSID must be configured for the AP. The instructor must announce or post the AP SSID to which student clients should connect.

Step 1 View the current status of the client adapter

Open the ADU application from either the Start Menu or by right-clicking the client monitor icon from the System Tray. From the **Current Status** tab, a number of useful settings can be seen.



Record the following information from the **Current Status** screen:

1. Profile Name: _____
2. Network Type: _____
3. Data Encryption: _____
4. Adapter IP Address: _____

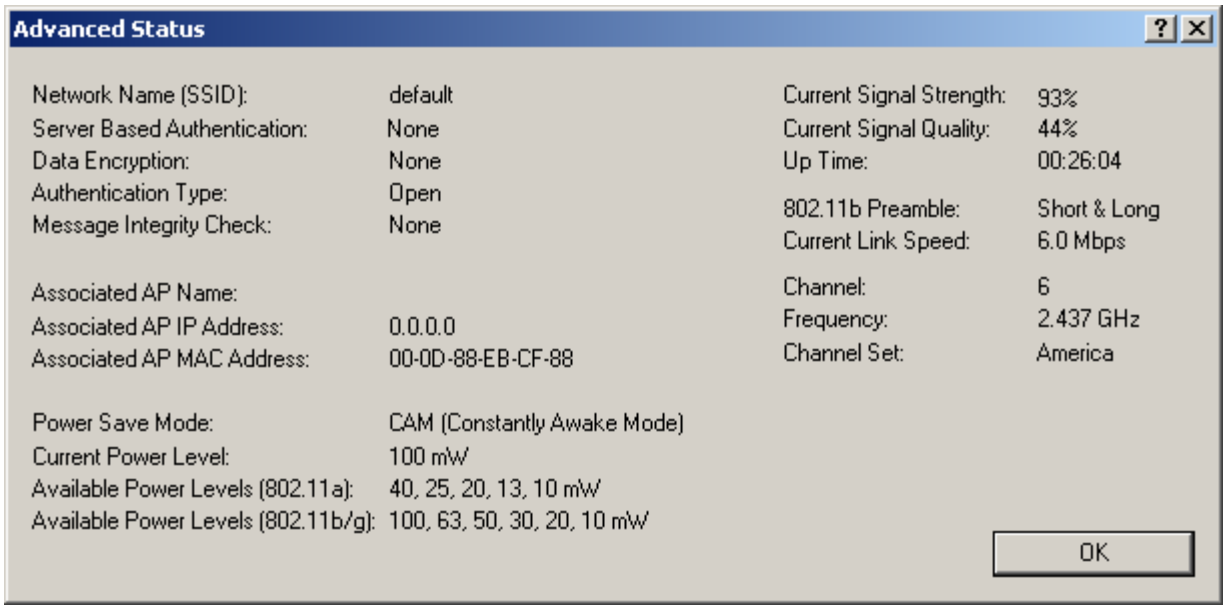
If the connection is made from a laptop computer, move the computer to another part of the room and observe the **Signal Strength**. The graphical display should change as the adapter receives a stronger or weaker signal from the access point.

Step 2 Advanced information

The **Advanced** button can be used to view more detailed statistics for the adapter. Information in the **Advanced Status** window includes settings that have been assigned for SSID, Channel, and Available Power Levels.

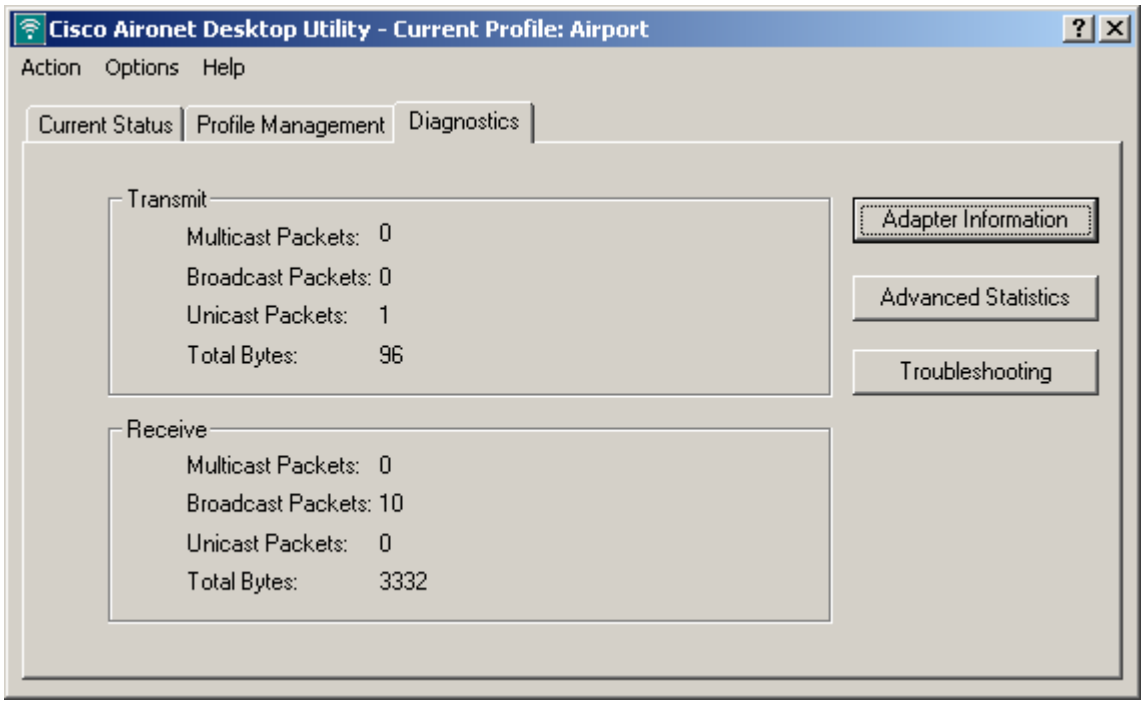
If the access point has been configured to move to the least congested channel, the information in this screen can be used to determine which channel has been selected.

1. Record the current **Channel** from the Advanced Status screen for the adapter: _____
2. Record the current **Link Speed**: _____
3. Record the **Signal Strength** and **Quality**: _____

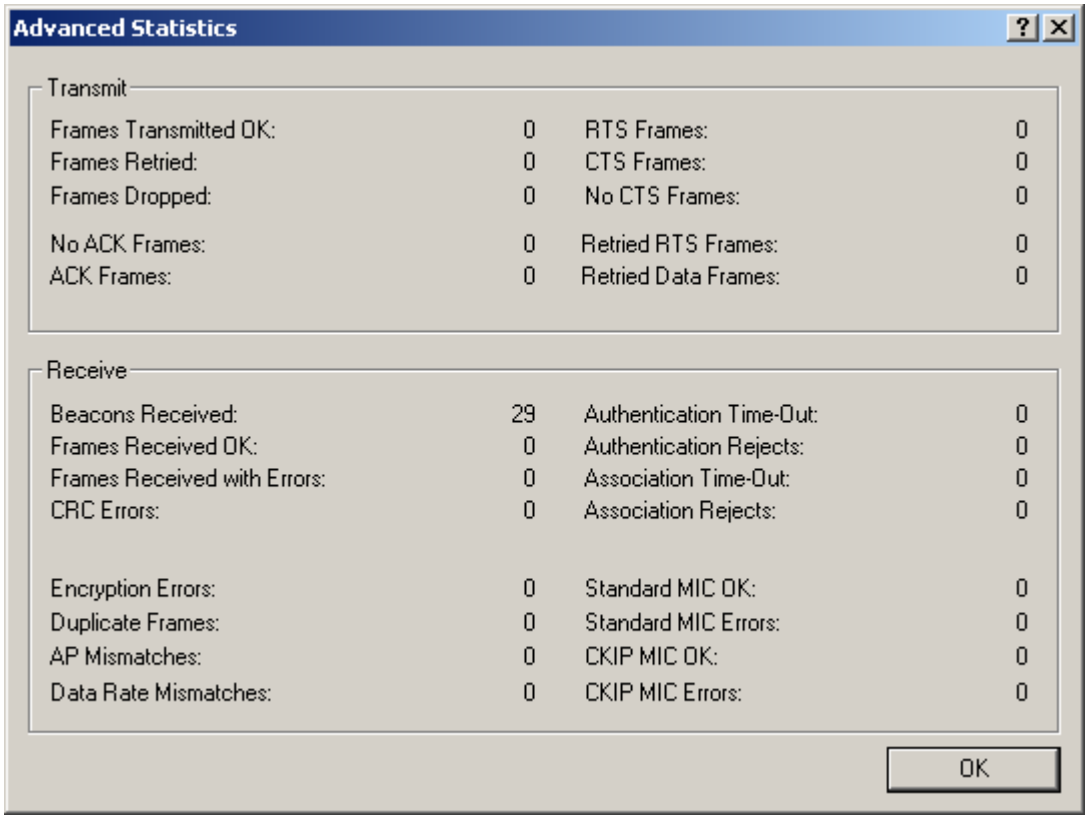


Step 3 Diagnostics

The **Diagnostics** tab has several useful utilities. Basic transmit and receive statistics are presented on the main page. These statistics are useful to determine if the adapter is sending and receiving wireless data.

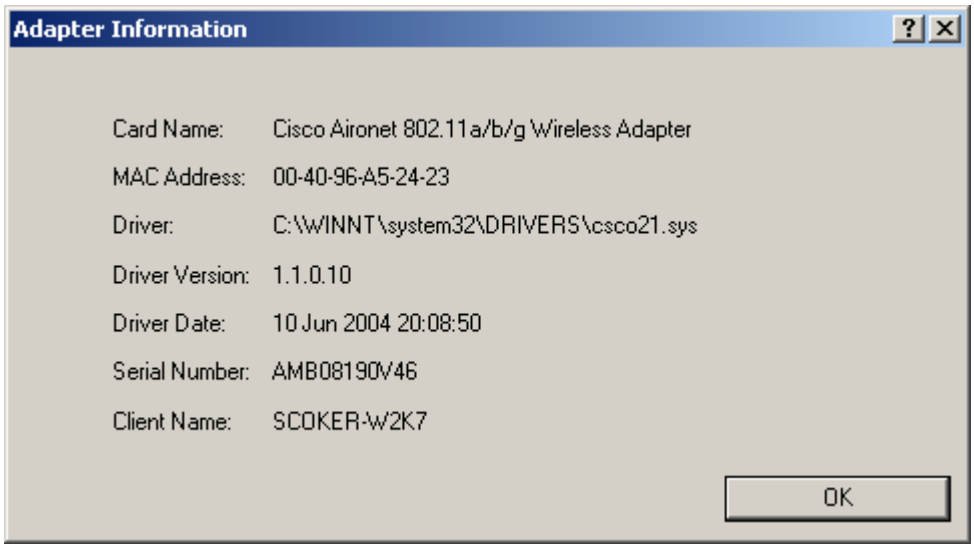


Clicking the **Advanced Statistics** button will open up a window with more detailed information for the wireless connection. Two of the most useful categories of information in this window include authentication statistics and encryption error statistics. When security is applied to the access point, these statistics will be useful to determine if the adapter has had authentication or encryption errors.



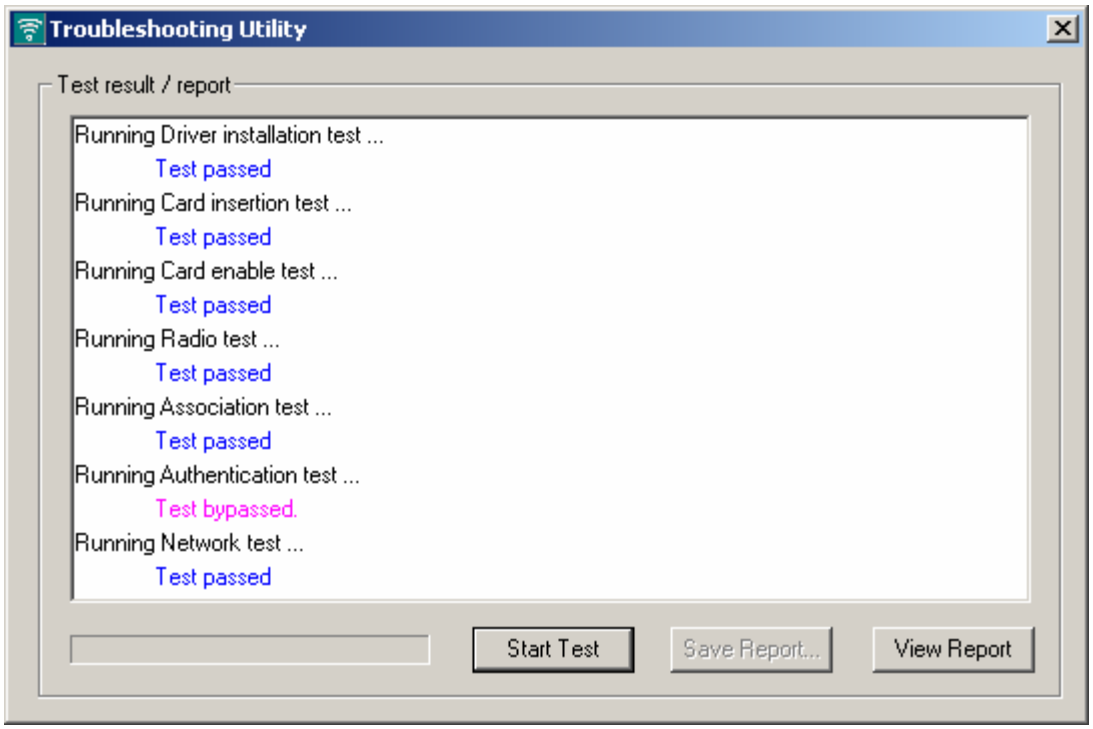
The Adapter Information button opens a window that provides information about the adapter hardware. One very useful parameter displayed is the adapter MAC address.

1. Record the adapter MAC address here: _____

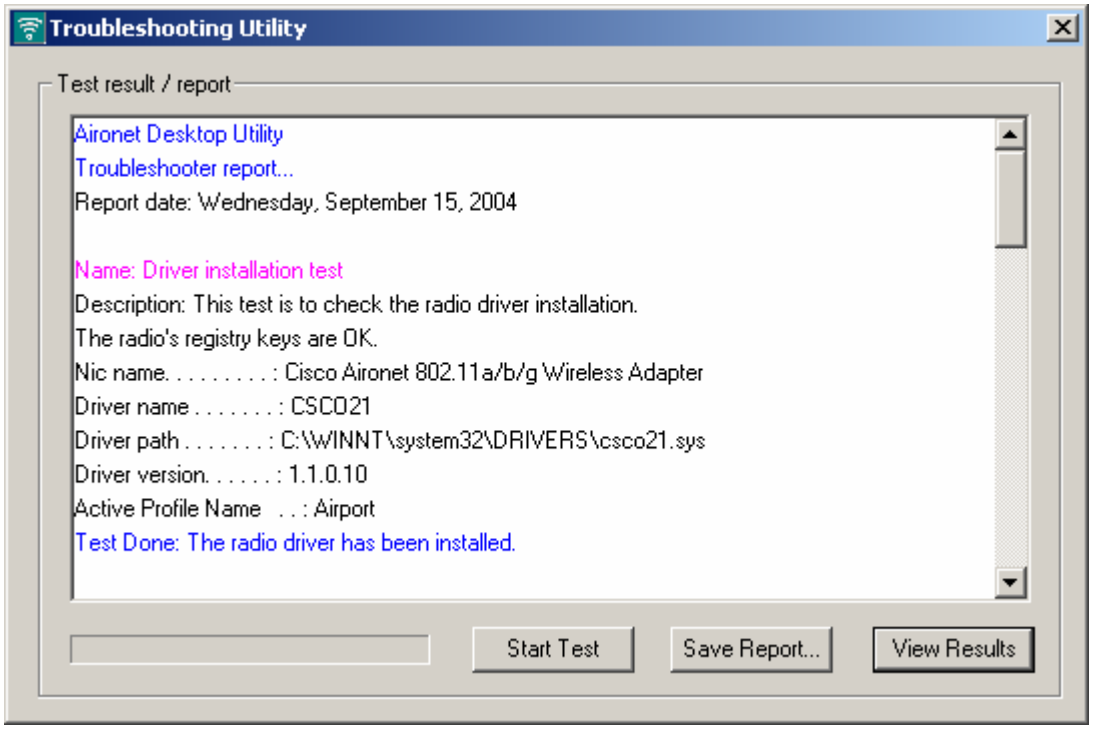


Step 4 Troubleshooting

The **Troubleshooting** button is used to access the built in diagnostic tests. Click the **Start Test** button to begin the diagnostic tests.



Once the tests have completed, a detailed report can be viewed. This report provides useful information for troubleshooting both the hardware and software configuration of the wireless adapter.



Scroll through the test results and record the following information:

1. Active Profile Name: _____
2. AP name: _____
3. AP IP address: _____
4. Default network gateway: _____

