



Cisco University LRE and BBSM Hands-On Labs

Introduction

This set of hands-on lab exercises will make the student familiar with the configuration and use of Cisco Aironet wireless local area network equipment.

Lab 1: Access Point - Basic Configuration

In this lab, you will provide the basic configuration to the Cisco Aironet Access Point, including IP information.

Objectives

In this lab you will complete the following tasks:

- Access the Cisco Aironet Access Point with the console port
- Examine the startup messages from the Access Point
- Modify IP address settings on the Access Point
- Examine and modify other basic settings

Setup

When you start this lab,

- There can be any number of PC or laptops equipped with Cisco Aironet Client Cards.
- The Access Points should be connected with an Ethernet switch or hub.

Note There may not be enough equipment for every student to perform this lab hands-on. The other students should observe and assist.

Task 1: Using the Access Point Console Interface

When you start this lab,

- The Access Point should be powered off (unplugged).
- The Ethernet cable should be disconnected.

Step 1 Make sure the Access Point is powered off.

- Step 2** Plug the console cable into the serial port on the Access Point, and connect to the serial port of the PC.
- Step 3** Double-click on the **console** icon on the desktop.
If there is no console icon on the desktop, open the HyperTerminal application from the Windows start button / Programs / Accessories / Hyper Terminal. Select the **console** template.
- Step 4** Plug in the Access Point power cord.
- Step 5** Observe the messages as the Access Point comes up. Also observe the **Status Lights**.

Note Be patient. Wait till the **Summary Status** screen appears

The Access Point will display various startup messages, including a memory check, image and driver loading, and network connection status.

Note Since the Ethernet cable is disconnected, the DHCP and DNS processes will fail.

- Step 6** Press the **equals sign** (=). That will refresh the data on the screen.
- Step 7** Press **return** again. The initial screen is the **Express Setup** page.
- Step 8** At the bottom of the display, you will see a list of options:

[Home] - [Network] - [Associations] - [Setup] - [Logs] - [Help] - [END]
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- On these pages, any text surrounded by brackets [] shows links to other pages.
- The capitalized letters show the minimum entry required to uniquely identify that link.
- Depending on the current page, you may or may not need to press <return> after the entry.
- The current page will not have brackets around it.

- Step 9** Press **N** <return> for **Network**. The **Network Ports** page will display.
- Step 10** Press <return>. The **Network Ports** page will display again.
- Step 11** Press **L**. The **Event Log** page will display.
- Step 12** Press **A** <return>. The **Associations** page will display.
(Be patient - wait for the menu bar to display again.)
- Step 13** Press the **equals sign** (=). The **Summary Status** page will re-display.
- Step 14** Press **S** <return>. The **Setup** page will display.

Task 2: Setting the Access Point IP Address

- Step 1** Press **EX**. The **Express Setup** page will display.
From this page you can make many configuration changes.
- Step 2** Type **AD** <return>.
- Step 3** Determine the correct IP address from the IP address table in Introduction.
- Step 4** Enter the IP Address and press <return>.

The **Express Setup** page will re-display, with the IP address changed to the value you entered.

- Step 5** Press **SU** <return>.
- Step 6** Enter the subnet mask. The same subnet mask is used for all devices in this lab, **255.255.255.0**. Press <return>.
- Step 7** Press **GA**.
- Step 8** Enter the gateway address, which is the IP address of the Internal NIC (Top) of the BBSM server (eg. 10.10.x.1 where x is the Group number) <return>.
- Step 9** Examine the **Express Setup** page to verify that you have entered the correct values.
- Step 10** Press **AP** <return> to **Apply** the values. (**They will not take effect unless and until you do this.**)
- Step 11** Press the **equals sign (=)**. The **Summary Status** page will re-display.
- Step 12** Verify the address on the Network Ports is correct.

Task 3: Connecting the Access Point to the Wired LAN

- Step 1** Enter **N** <return> to see the **Network Port** page.
- Step 2** Note the **Status** of the Ethernet port.
- Step 3** Note the number of packets sent and received over the Ethernet port.
- Step 4** Note the **Mb/s** of the Ethernet port.
- Step 5** Now plug the Ethernet cable from the Ethernet switch into the Access Point RJ-45 port.
- Step 6** When the Access Point comes up, note the BPS of the Ethernet port.
- Step 7** Watch the Ethernet status LED.
- Step 8** Press the **Equal Sign (=)** to go to the **Summary Status** Page
- Step 9** Enter **N** for the **Network** page.
- Step 10** Enter **E** for the **Ethernet Port** page.
- Step 11** Note the number of packets and bytes transmitted and received.

Completion Criteria

You have successfully completed this laboratory exercise if the IP information shows correctly on the **Network** page, the **Express Setup** page and the **Summary Status** Page

Lab 2: Configuring the Cisco Aironet PC Card

In this lab, you will configure the Aironet PC Card to work with the Cisco Aironet Access Point.

Objectives

In this lab you will complete the following tasks:

- View the Link Status Meter
- Access the PC Card configuration software
- Modify settings on the PC card

Setup

The lab setup includes any number of Cisco Aironet Access Point and PCs with Aironet Client cards.

Task 1: Setting Parameters with the Aironet Client Utility (ACU)

Step 1 Double-click on the **Aironet Client Utility** icon on the desktop.

- If there is no **Aironet Client Utility** icon on the desktop, select **Startup>Programs>Cisco Systems, Inc.>Aironet Client Utility (ACU)**.

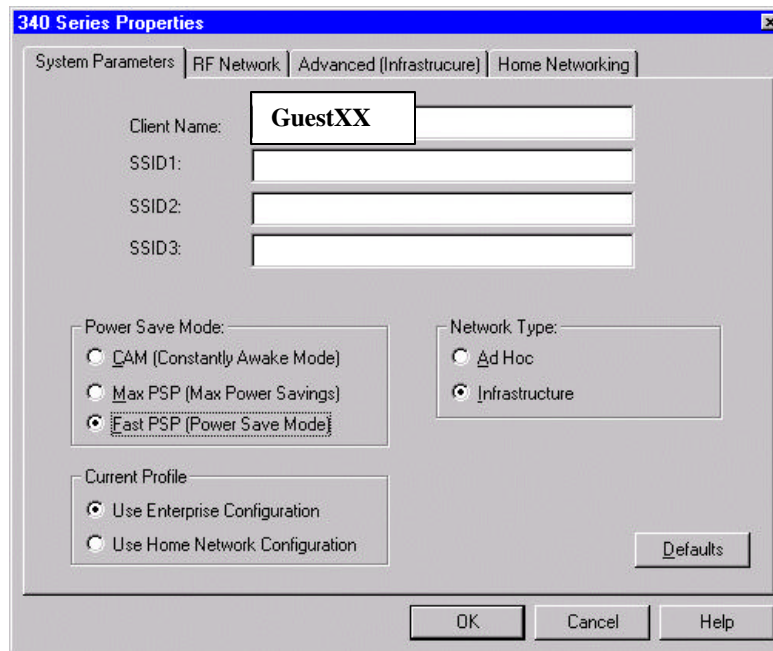


Step 2 When the ACU comes up, note that at the bottom it tells you which Access Point your PC Client Card has established an association with.

Subtask 1: Editing Properties

Step 1 From the menu bar, pull down **Commands/Edit Properties**.

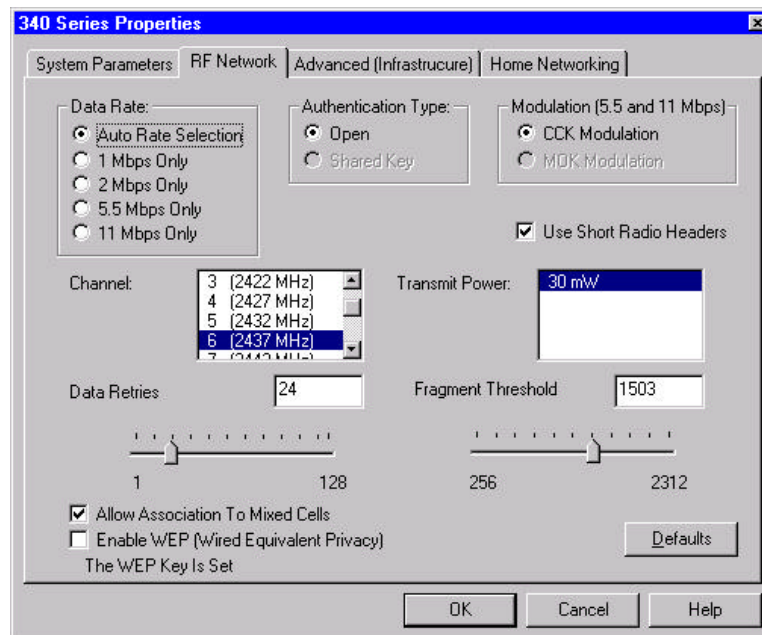
Step 2 View the **System Parameters**.



Step 3 **Note** : Configure the SSID according to the table in Introduction.

Step 4 Leave the rest of the configuration as default.

Step 5 Select the **RF Network** tab.



Step 6 Ensure that “**Enable WEP (Wired Equivalent Privacy)**” is not checked.

Step 7 Leave the rest of the configuration as default.