O BSS, ESS and SS ID

The basic service set (BSS) is the basic building block of WLAN network. Minimum WLAN BSS may be consist of only two stations. Using access point (AP) and network distribution systems (DS), WLAN service set can be extended arbitrary size – extended service set (ESS). Each service set has its network ID (SSID). All the service sets within an ESS network can have same service ID so that the ESS can support inter-cell ROAMING.



Figure 4. SSID and Roaming

Chapter 2 Setup AcroLAN Access Point

2.1 Before You Begin Installation

The Acrowave AcroLAN AWL-1100 Series Access Point is a wireless LAN transceiver that can act as the center point of a stand-alone wireless LAN network or as the connection point between wireless and wired networks. In multiple installations, the roaming functionality provided by multiple Access Points allows wireless users to move freely throughout the facility while maintaining seamless, uninterrupted access to the network. The Access Point supports Access Point management software. The system settings are contained on the Access Point's firmware.

Before setting up your Access Point, ask your network system administrator for the following information:

- If your network does not use a DHCP server, you need an IP (Internet Protocol) address for the Access Point. If your network uses a DHCP server, an IP address will be assigned automatically. Each station or device on your network must have a unique IP address.
- If there is some Access Points are already installed, SSID and channel allocation strategy.
- WEP key allocation



You should configure the Access Point before mounting it on a pole or a ceiling. Some configuration steps, such as communicating with the Access Point through a serial cable, may be difficult if the Access Point is inaccessible.

Before you begin installation, make sure that you have the following items:

- The Acrowave AcroLAN AWL-1100 Series Access Point
- The Access Point power supply
- The Acrowave AcroLAN AWL-1100 Series Installation CD

If any of these items are missing from the package, contact your Access Point supplier. You will also need:

- A computer that is connected to the same network as the Access Point
- A 9-pin, straight-through, male-to-female serial cable

2.2 Installing The Acrowave AcroLAN AWL-1100 Series Access Point

Follow the instructions below to install the Access Point.

STEP 1 Adjust the antennas

For maximum range, make sure the antennas on your Access Point straight up or straight down, no matter where your Access Point is mounted.

If you keep your Access Point on a table or a desk, turn the antennas so they point straight up. If you mount your Access Point on a wall or a pole, turn the antennas so they are vertical, even though the Access Point is on its side. If you mount your Access Point on the ceiling, turn the antennas so they point straight down.



Antenna configurations can be varied depending on the Access Point model, cell coverage or cell plan.

STEP 2 Ethernet Cable Connection

Connect the Ethernet cable from your wired LAN to your Access Point. Make sure the unit is not powered up when you connect your network cable.



STEP 3 Connect The Power Pack

Plug the Power Pack into a wall outlet or a power strip, and plug the connector into the power receptacle on the back of the Access Point.



All three indicators on top of the access point will be bright green. During normal operation, the indicators will be bright green. If the indicators does not display a solid color or blink, see the "Top Panel Indicator Descriptions" in this manual.



If you have already installed Acrowave AcroLAN AWL-1100 series client card, you can easily configure Access Point through air connection between your computer and Access Point. You may skip next step and go to Access Point Management section.

STEP 4 Connect Serial Cable

If you have a DHCP server, the server automatically assigns an IP address to the Access Point when you connect it to your network. To use the Access Point's management system, you need to find out the assigned IP address.

If you have access to the DHCP server, you can look on the server to find the IP address assigned to the Access Point.

If you cannot access the DHCP server, use a 9-pin, straight-through, male-to-female serial cable to connect the COM 1 or 2 port on your computer to the RS-232 on the back of the access point. After you find the assigned IP address, you can remove this cable. You might need the cable again if you need to update the Access Point's configuration in the future.



STEP 5 Open Terminal Program

Open the HyperTerminal program on the workstation attached to the Access Point. These instructions describe HyperTerminal for example, but you can use any terminalemulation program to communicate with the Access Point. This window appears:

Connection Description				
New Connection				
Enter a name and choose an icon for the connection:				
Name:				
Acrowave				
lcon:				
OK Cancel				

Type a name for the connection and click **O**K. The Connect To window appears:

Connect To ? X				
Acrowave				
Enter details for the phone number that you want to dial:				
Country/region: United States of America (1)				
Ar <u>e</u> a code:				
Phone number:				
Connect using: Direct to Com1				
OK Cancel				

Choose the port on your computer to which the serial cable is connected. Click **O**K. The port settings window appears:

COM	1 Properties	? ×	
Po	ort Settings		
	'		
	Bits per second: 19200		
	Data bits: 8		
	Parity: None		
	Stop bits: 1		
	Elow control: None		
	Advanced <u>R</u> estore Defaults		
OK Cancel Apply			

Set Bits per second (baud rate) to **19200**, Data bits to **8**, Parity to **Non**e, Stop bits to **1**, and Flow control to **Non**e. Click **O**K.

The Setup screen appears in the HyperTerminal window. If the text does not appear immediately, press **Enter**.

If the Access Point has no problem, you can find prompt on the terminal program's display box:

🍖 AP - HyperTerminal (Unlicensed)	=D×
Eile Edit View Call Itansfer Help	
020202	(1)
AP_1100E>	