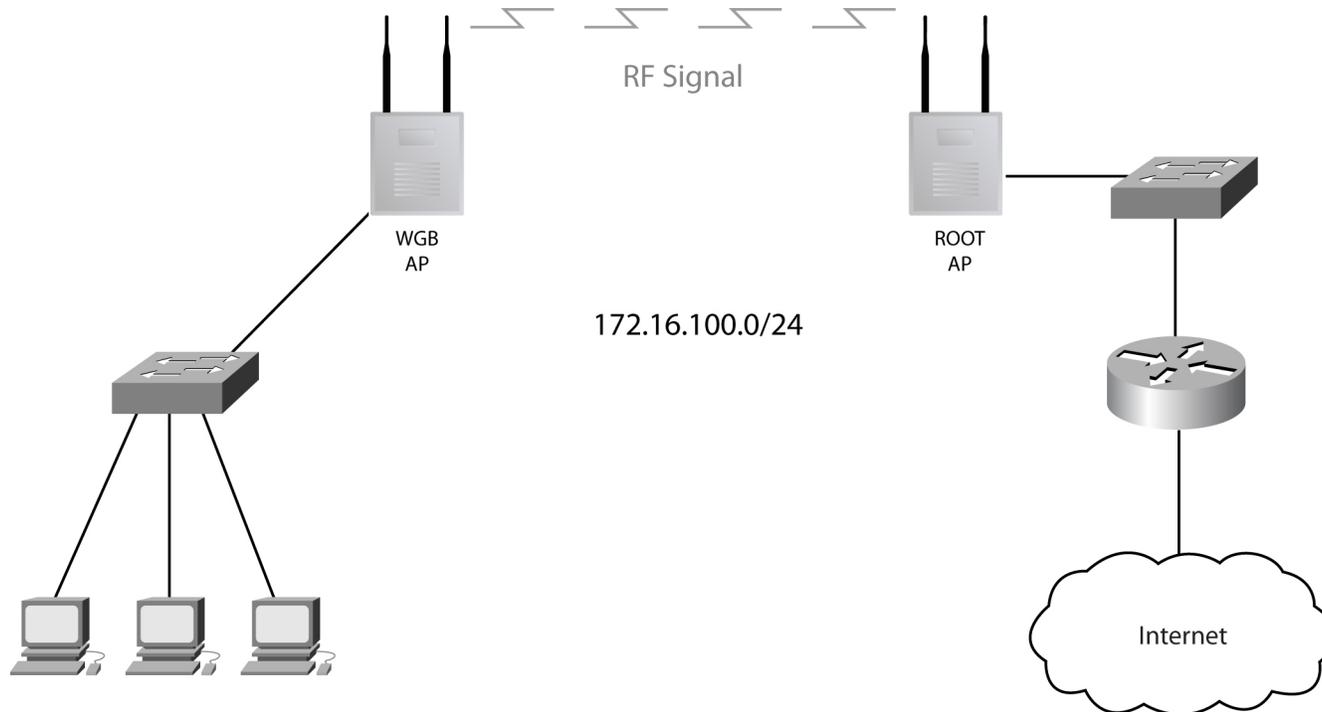


Aironet 1200 Wireless Workgroup Bridge Tutorial

(By Angel Cool; Friday, April 9, 2010)



Topology Layout

Introduction

This tutorial will demonstrate how to configure a wireless workgroup bridge (WGB) between two aironet access points; the models used in this tutorial are: AIR-AP1230B-A-K9 and AIR-AP1220-IOS-UPGRD both running IOS image: 12.3(8)JED (c1200-k9w7-mx.123-8.JED). We will start by setting up the root access point, besides the WGB other wireless clients will be able to connect to the root AP.

Root Setup

Configuration steps:

- 1.- Create an SSID:

```
(config)# dot11 ssid bridge_link
(config-ssid)# authentication open
(config-ssid)# authentication key-management wpa
(config-ssid)# wpa-psk ascii 0 bridge_link_@ccess
```

The above commands indicate what type of key management will be used and the password to be used by clients and the WGB to connect to the root access point. Optionally, we can set the root AP to broadcast the SSID using the command:

```
(config-ssid)# guest-mode
```

- 2.- Configure the radio:

```
(config)# int dot11Radio 0
(config-if)# encryption mode ciphers tkip
(config-if)# ssid bridge_link
(config-if)# no shut
```

We associated the SSID created in step 1 with this radio and specified the encryption cypher to be used. At this point wireless clients are able to connect to the root, the WGB will be connecting as a client.

WGB setup

Configuration steps:

1.- Create an SSID:

```
(config)# dot11 ssid bridge_link
(config-ssid)# authentication open
(config-ssid)# authentication key-management wpa
(config-ssid)# wpa-psk ascii 0 bridge_link_@ccess
```

2.- Configure the radio:

```
(config)# int dot11Radio 0
(config-if)# station-role workgroup-bridge
(config-if)# encryption mode ciphers tkip
(config-if)# ssid bridge_link
(config-if)# no shut
```

After entering the above commands the WGB should associate with the root AP. The key command is “*station-role workgroup-bridge*”, this command set the AP to a workgroup bridge, the other commands are just a mirror configuration of the root AP.

Verification and Troubleshoot

The following log message will be seen in the root AP if the WGB has the wrong password:

```
%DOT11-7-AUTH_FAILED: Station 000e.8349.e1d0 Authentication failed
```

The following log message will be seen in the WGB after successfully associating with the root AP:

```
%DOT11-4-UPLINK_ESTABLISHED: Interface Dot11Radio0, Associated To AP root 0007.50d5.e96e
```

Use the “*show dot11 associations*” global configuration command to verify associations.

Conclusion

We demonstrated the configuration steps to set a WGB association with a root AP. All devices in the topology seen in the image are in the same subnet (172.16.100.0/24); if the router is acting as a DHCP server, hosts attached to the WGB will acquire an IP from this router.