- Basic Wireless Lab -

Basic Wireless – Lab

Switch 1
Catalyst 3550 EMI

Fa0/1

Fa0/24

Internet

RouterA
192.168.123.254 /24

Fa0/11   Fa0/12   Fa0/13

ServerA
172.16.1.10 /16

AP_A
192.168.123.11 /24

AP_C
192.168.123.13 /24

AP_B
192.168.123.12 /24
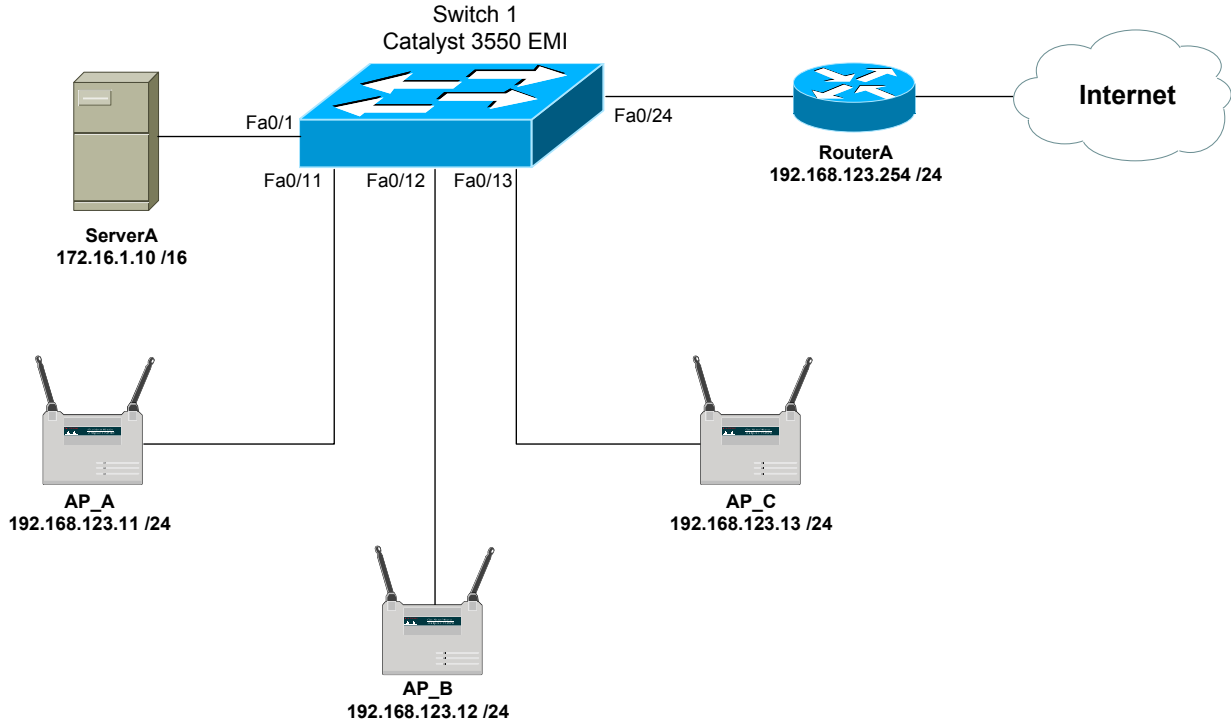
Basic Objectives:

1. Configure and cable the Ethernet interfaces as indicated in the above diagram.
2. Ensure that both ServerA and RouterA are configured as DHCP servers.

Wireless Objectives:

3. Assign the IP addresses to the Aironet access points as specified. The *default* IP address is 10.0.0.1, and username/password is Cisco (case sensitive).
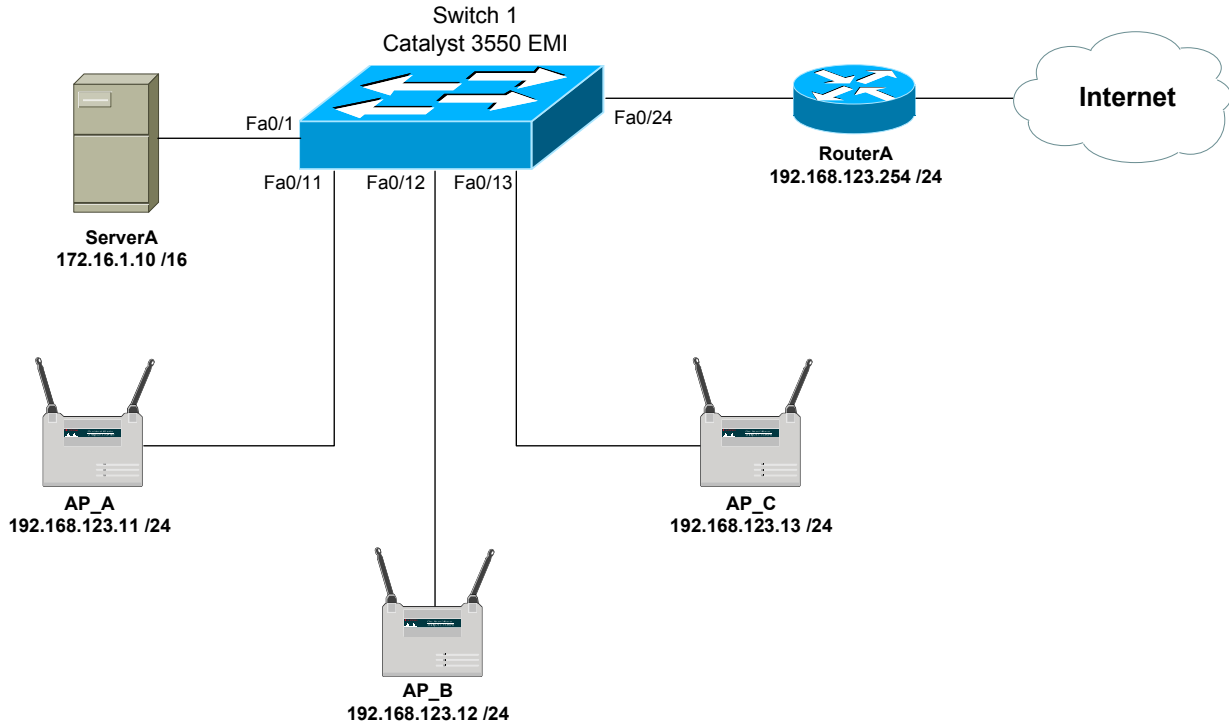
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Basic Wireless – Lab (continued)

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192.168.123.13 /24**

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192.168.123.12 /24**

Wireless Objectives:

4. Change the default SSID from *tsunami* to *publicY,* where *Y* is your AP's assigned letter. For example, AP_B should have an SSID of *publicB*.

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_____
_____
_____
_____

5. Ensure this SSID is broadcasted, but uses open authentication and no encryption.

_____
_____
_____
_____
_____

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192.168.123.13 /24

AP_B
192.168.123.12 /24
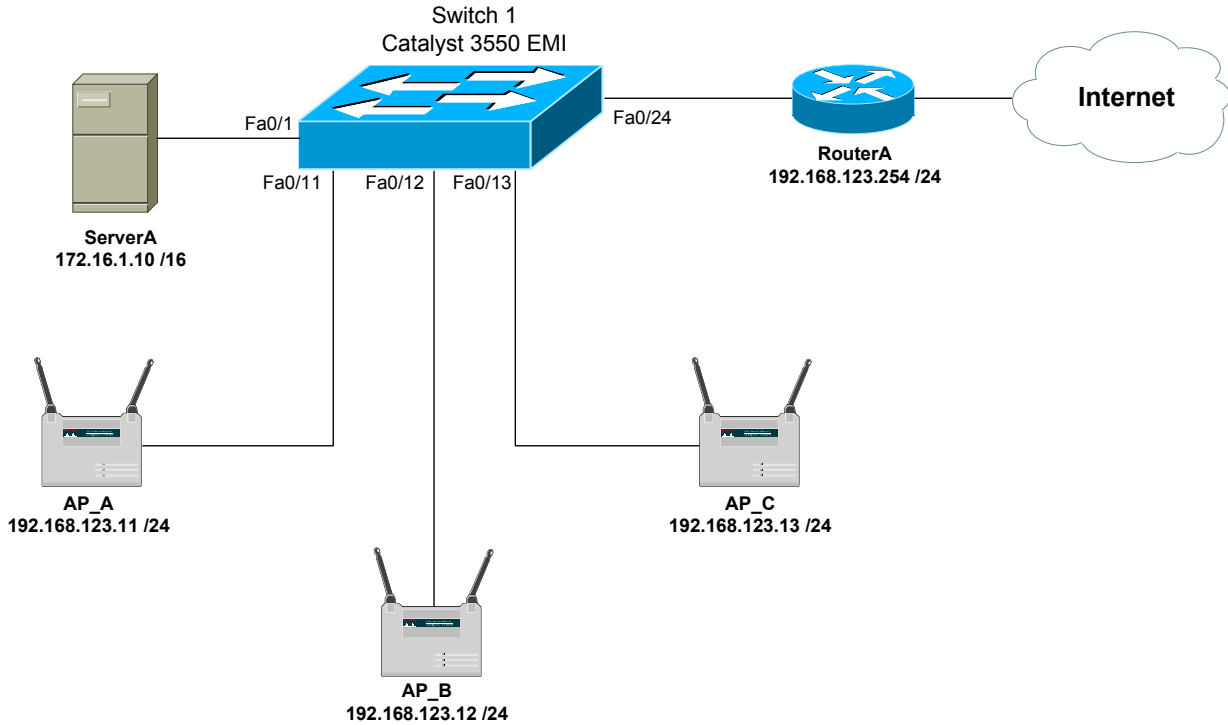
Wireless Objectives:

6. Configure a second SSID. Name this SSID *privateY*, where *Y* is your AP's assigned letter. For example, AP_B should have a second SSID of *privateB*.

   _____
   _____
   _____
   _____
   _____

7. Ensure this SSID is *not* broadcasted, but uses open authentication and no encryption.

   _____
   _____
   _____
   _____
   _____

Basic Wireless – Lab (continued)

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Fa0/24

**RouterA
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Fa0/11   Fa0/12   Fa0/13

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192.168.123.11 /24**

**AP_C
192.168.123.13 /24**

**AP_B
192.168.123.12 /24**
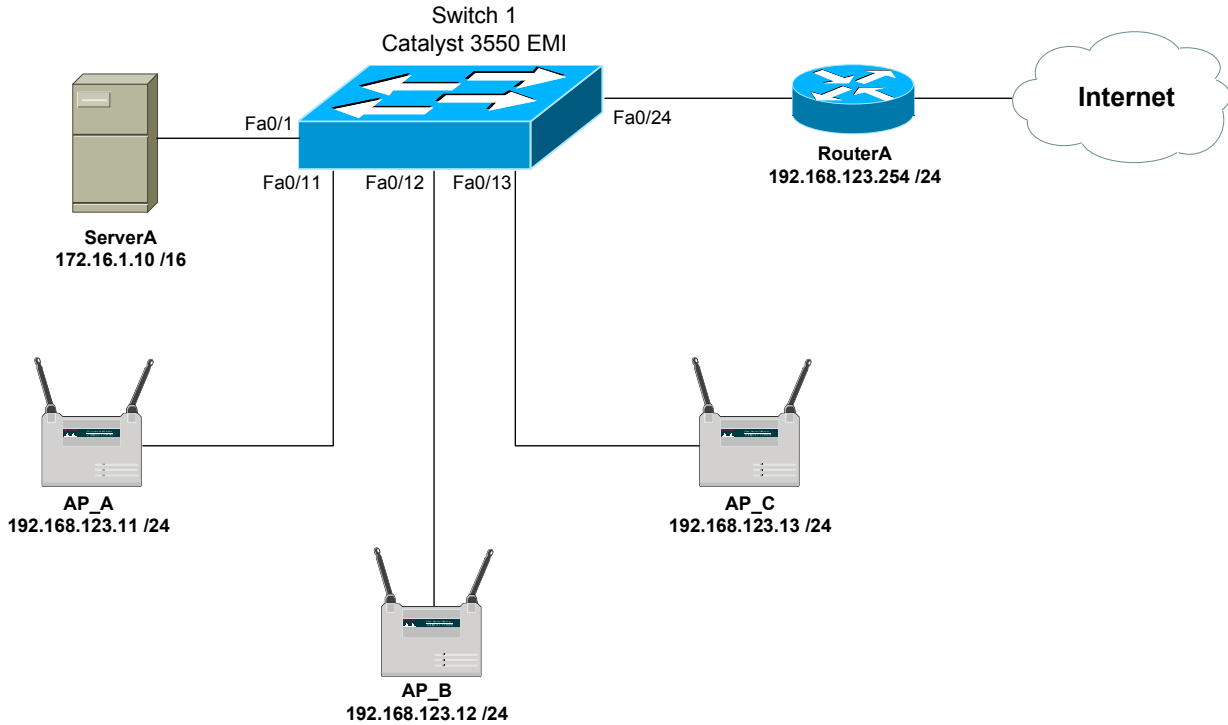
Wireless Objectives:

8. Create the following VLANs on Switch1, and assign the specified names:

    VLAN 1   – Public
    VLAN 300   – Private

    _____
    _____
    _____

9. Ensure that Switch1 forms a trunk connection with each AP.

    _____
    _____
    _____
    _____

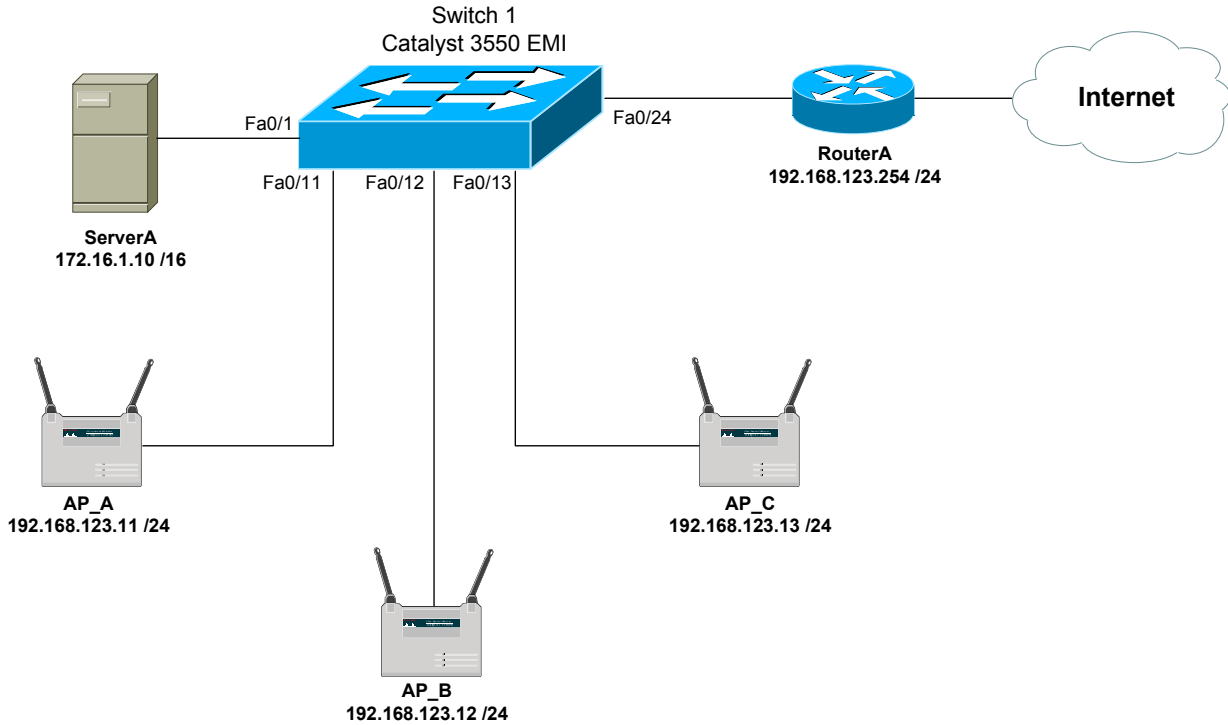10. Assign the interface connecting to ServerA to the Private VLAN.

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    _____
    _____
    _____

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192.168.123.12 /24

Wireless Objectives:

11. On each AP, assign the *publicY* SSID to VLAN 1, and the *privateY* SSID to VLAN 300.

    _____
    _____
    _____
    _____

12. From a wireless-enabled client, confirm which wireless networks are currently visible.
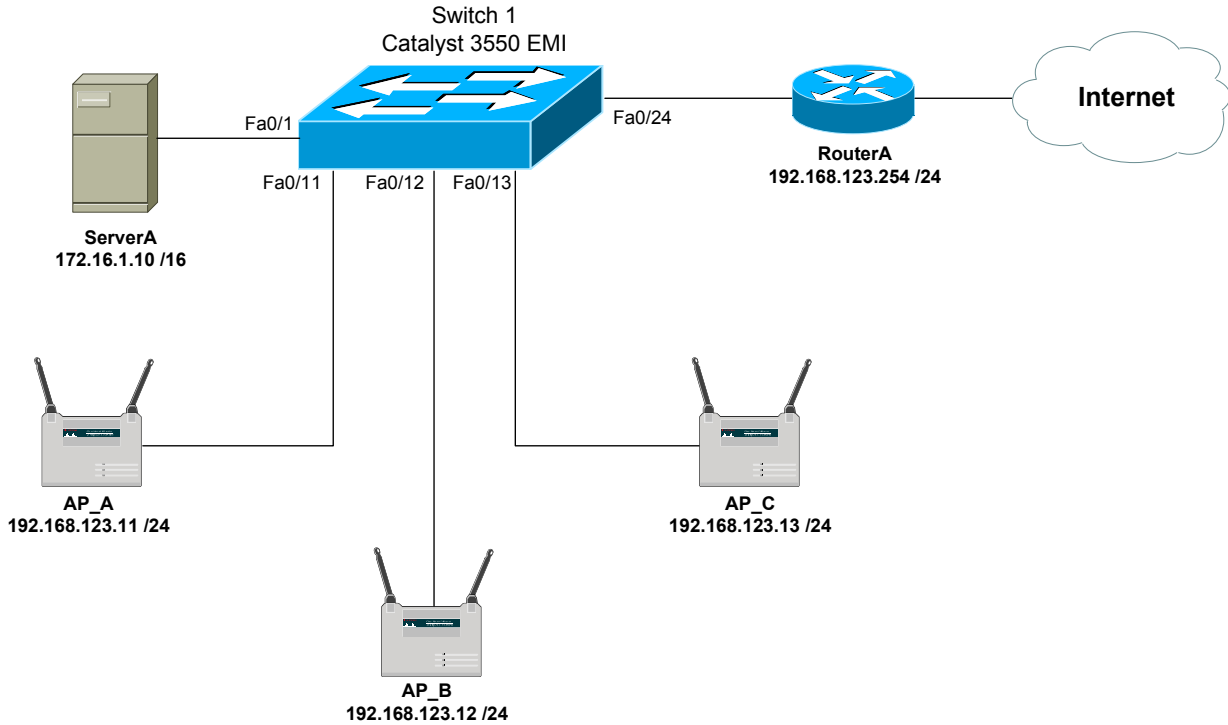
    _____
    _____
    _____
    _____

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192.168.123.12 /24

Wireless Objectives:

13. From a wireless-enabled client, confirm connectivity to the *publicY* network. Full connectivity to the Internet should be possible, but not to ServerA.

   _____
   _____
   _____

14. From a wireless-enabled client, confirm connectivity to the *privateY* network. Full connectivity to ServerA should be possible, but not to the Internet.
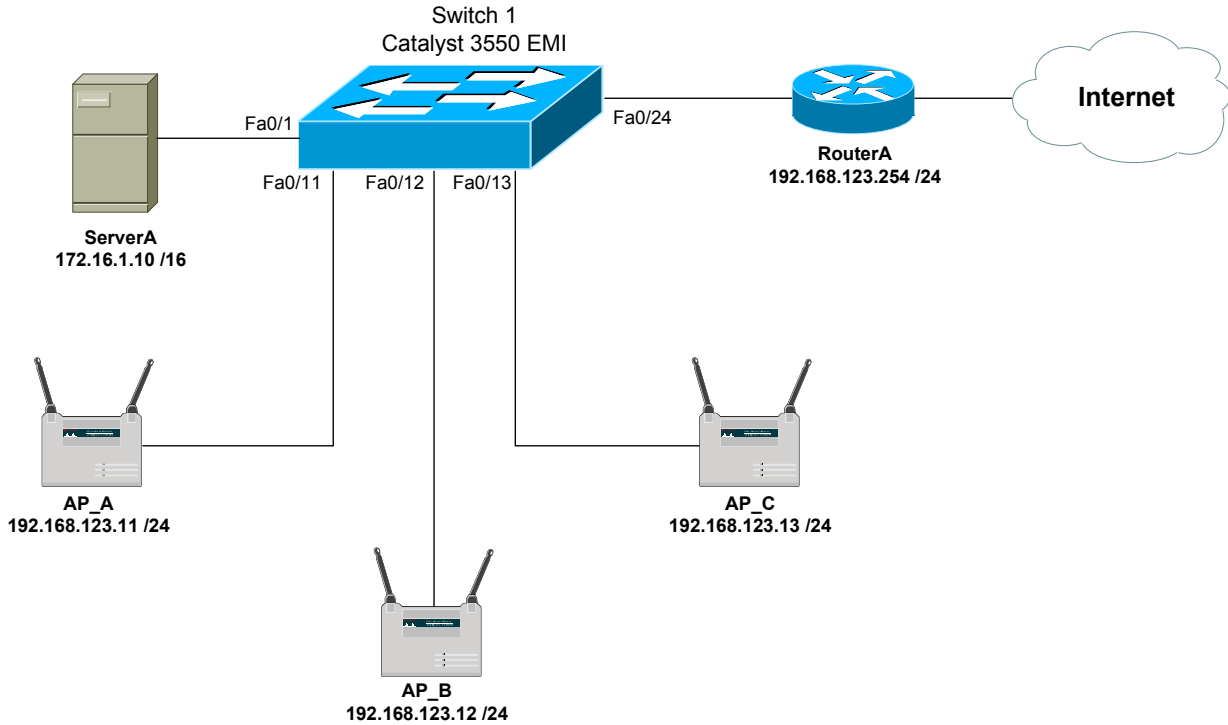
   _____
   _____
   _____

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Wireless Objectives:

15. For the *publicY* SSID, enable 128-bit WEP encryption. Choose a 128-bit key to use. Additionally change the authentication method to *shared.*

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   _____
   _____
   _____
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   _____

16. The wireless client should now see the *publicY* network as a 'secure' network. Connect to this network, and confirm connectivity to the Internet.
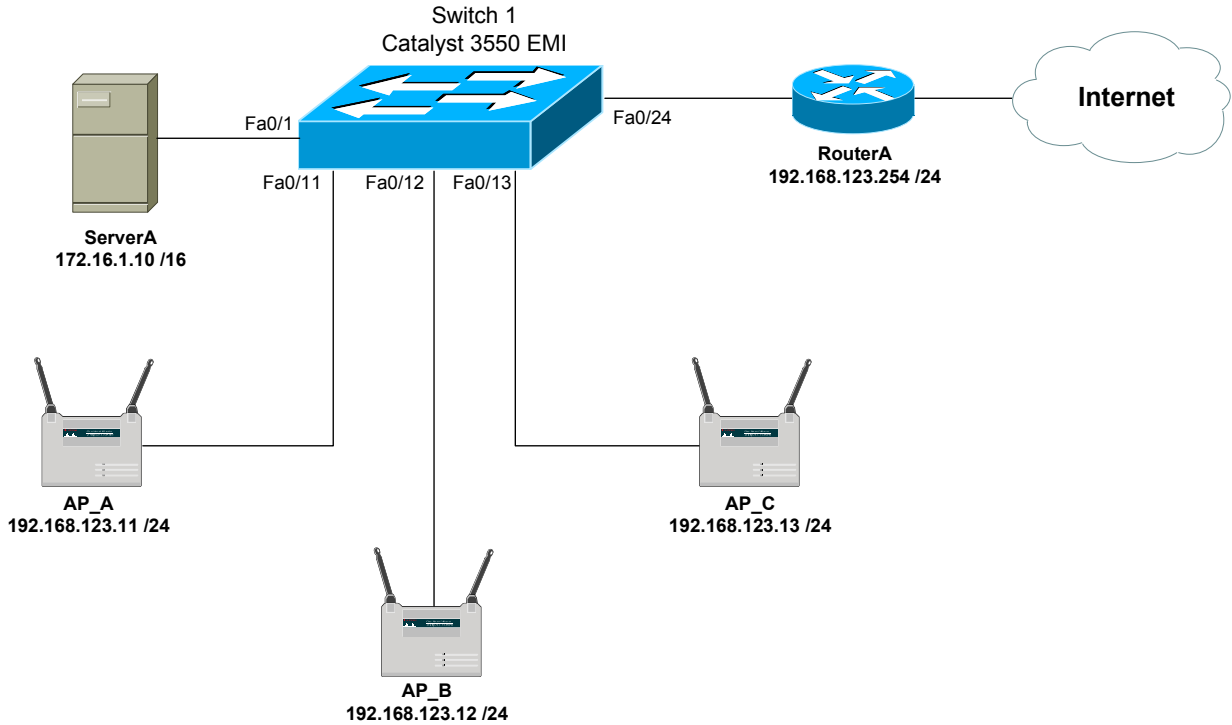
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   _____
   _____
   _____
   _____
   _____

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Wireless Objectives:

17. For the *privateY* SSID, enable TKIP encryption. Keep the authentication as *open*, but enable a mandatory WPA key for authentication. Use a WPA pre-shared key of *ciscoisthebomb.*

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18. Connect to the *privateY* network, and confirm connectivity to ServerA.

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