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Aruba Airgroup Implementation

Laerdal Medical

Aruba AOS 8.x

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1 Deployment Considerations

Bonjour is Apple's implementation of zero-configuration networking (zeroconf), a group of technologies that includes service discovery, address assignment, and hostname resolution.

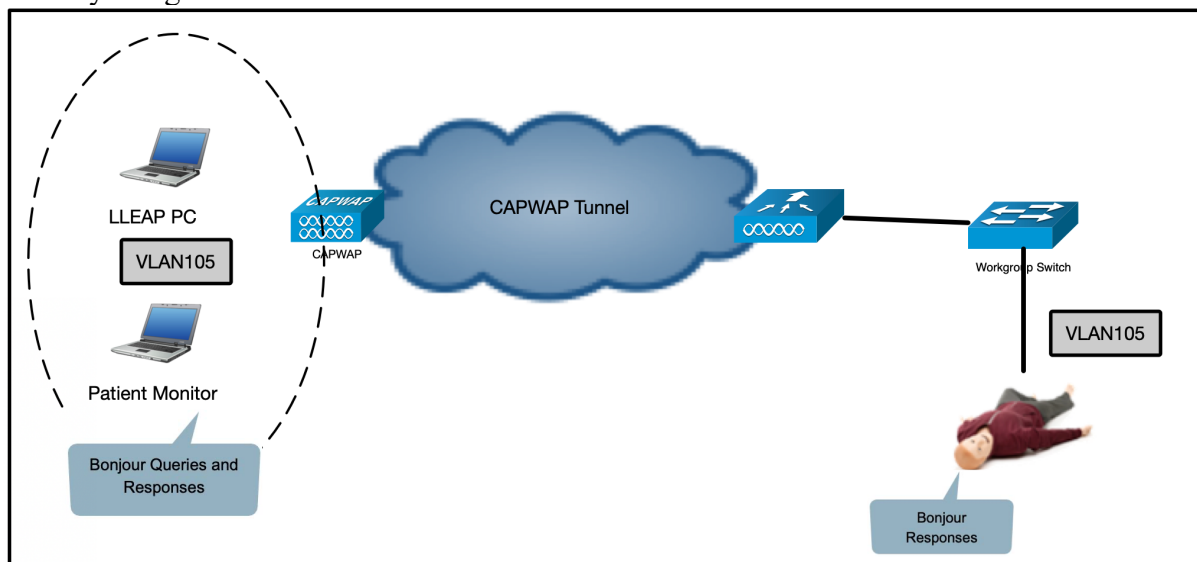
The following is a list of some of the Laerdal Medical devices that use this protocol for device discovery.

- SimMan3G
- Patient Monitor
- LinkBox
- Session Viewer

Each query or advertisement is sent to the Bonjour multicast address for delivery to all clients on the subnet. Apple's Bonjour protocol relies on mDNS operating at UDP port 5353 and each query or advertisement are sent to the following reserved group addresses:

- IPv4 Group Address – 224.0.0.251
- IPv6 Group Address – FF02::FB

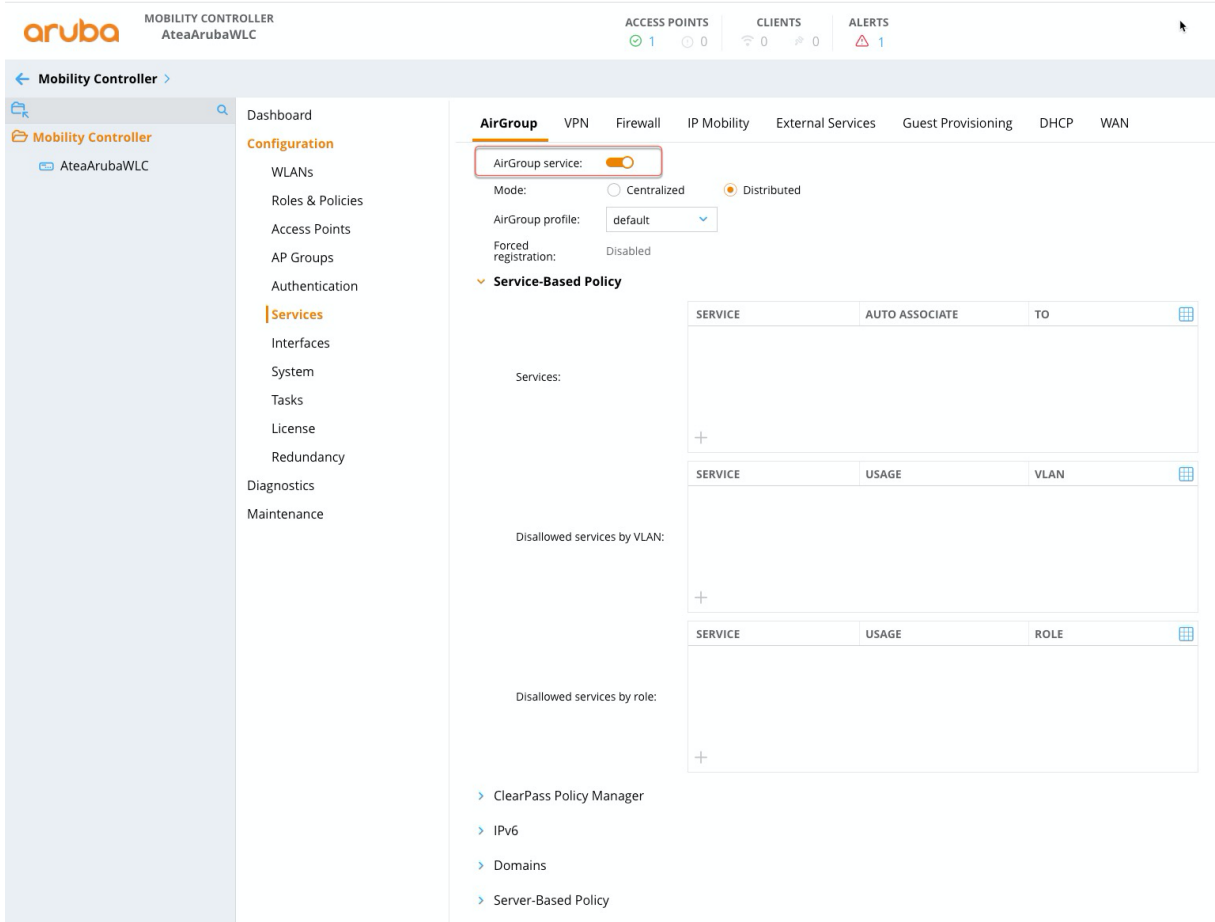
The addresses used by the Bonjour protocol are link-local multicast addresses and thus are only forwarded on the local L2 domain. Routers cannot use multicast routing to redirect the traffic because the time to live (TTL) is set to one, and link-local multicast is meant to stay local by design.



1.1 Aruba Gateway and Controller

On the Aruba Controller the Bonjour services are not advertised by default on access points that are configured in the mode local. In order for the controller to advertise the mDNS services that the Laerdal Medical simulation devices advertise the custom mDNS service ids must be configured on the controller.

The following outlines how to enable AirGroup service on the Aruba Controller.



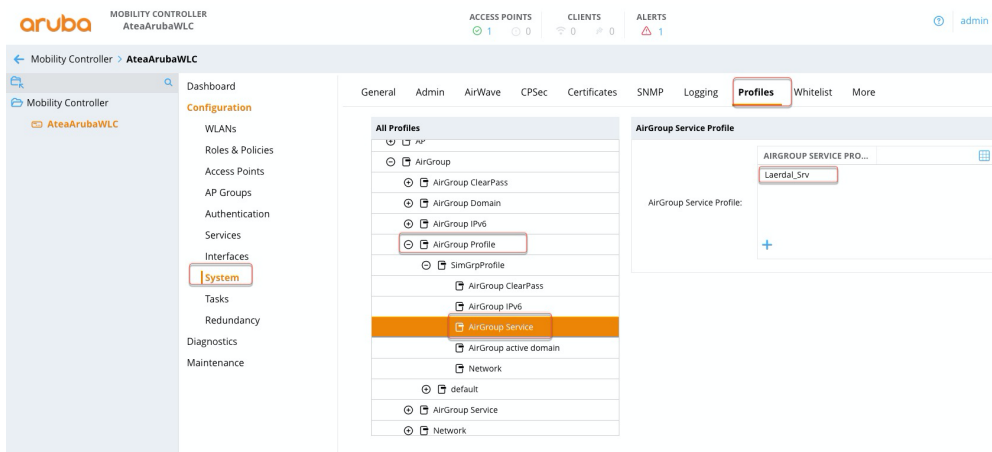
2 AirGroup Configuration

2.1 AirGroup Service Profile Creation

The following shows how to create a AirGroup Service Profile.

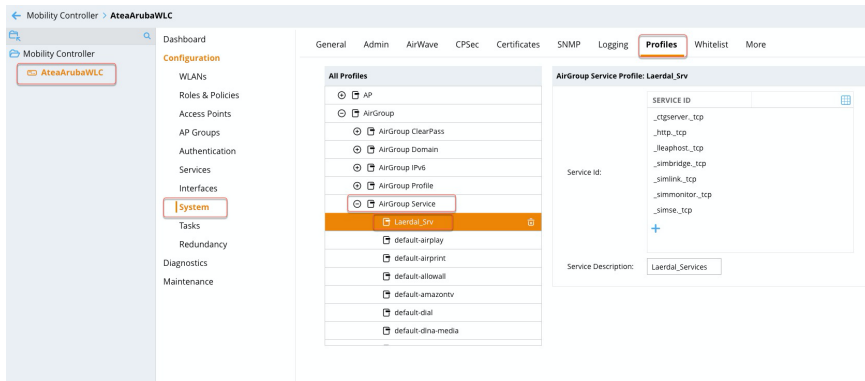
Under System -> Profiles ->AirGroup Profile->AirGroup Service

Select the plus sign to add a new service profile.



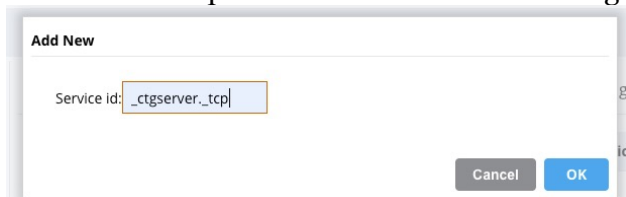
2.2 AirGroup Profile Service Configuration

Select the AirGroup Service profile to add the custom mDNS service IDs to the service profile.



Select the plus sign to add the service id under the service profile.

Enter all the required service ids before moving on to the next step.



2.3 Airgroup Service ID CLI Configuration Commands

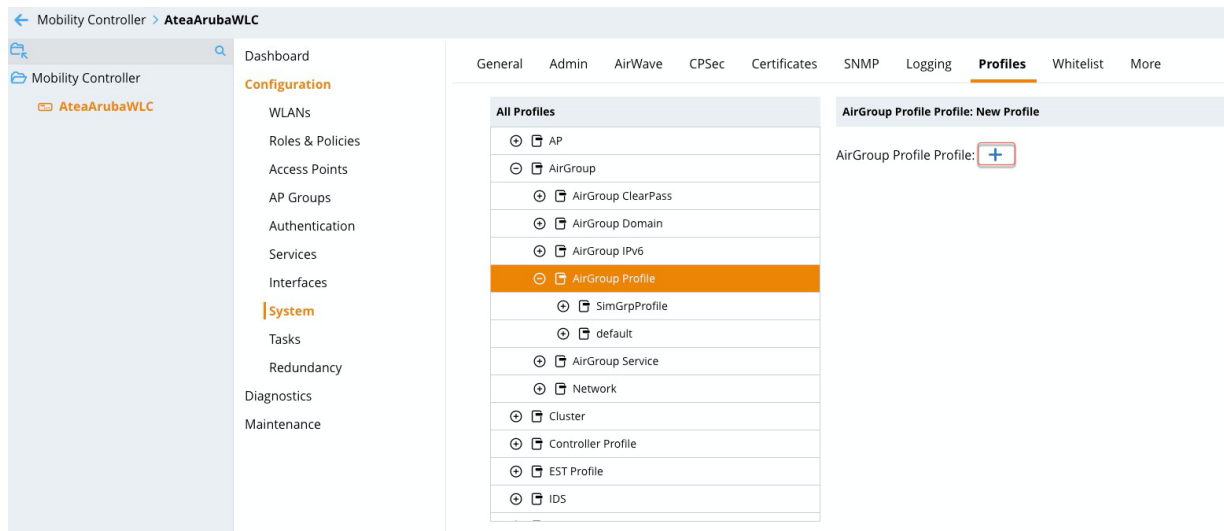
The following commands can be used to create the mDNS Service Profile and add the service IDs to it from the CLI.

Important Note: The mDNS “.local.” ending should not be added to the Aruba service IDs.

```
airgroupprofile service "Laerdal_Srv"
  id "_ctgserver._tcp"
  id "_http._tcp"
  id "_lleaphost._tcp"
  id "_simbridge._tcp"
  id "_simlink._tcp"
  id "_simmonitor._tcp"
  id "_simse._tcp"
  id "_simventures._tcp"
  id "_ssh._tcp"
  id "_workstation._tcp"
  description "Laerdal_Services"
```

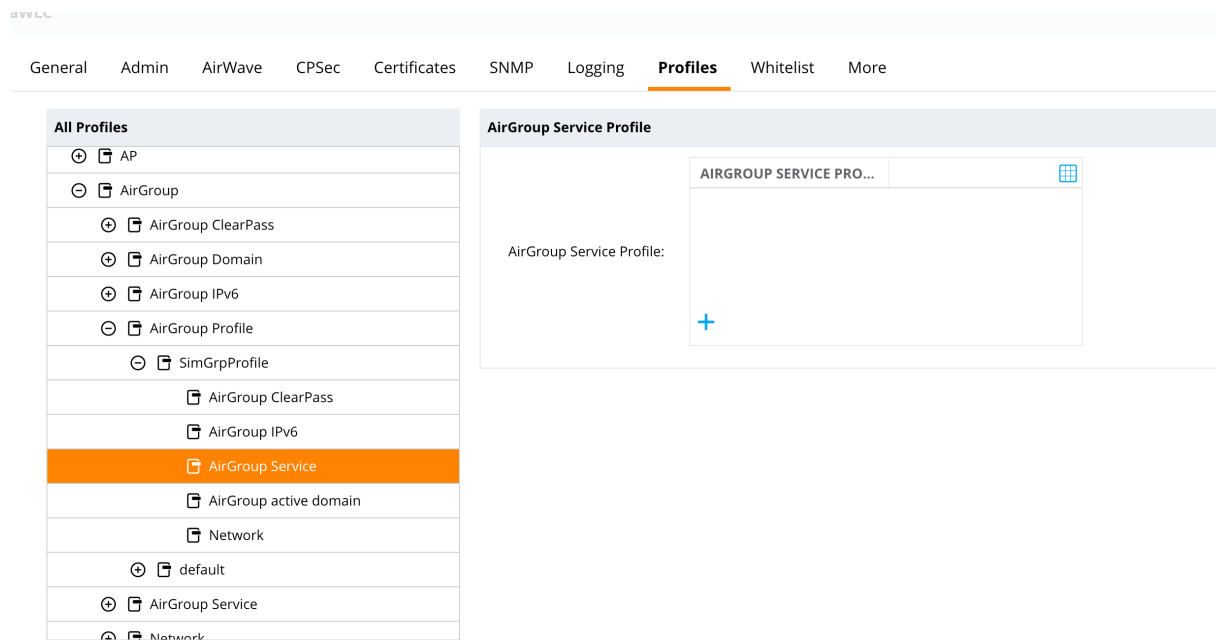
2.4 AirGroup Profile Creation

Select AirGroup Profile and select the blue plus sign to create a new AirGroup Profile.



2.5 AirGroup Profile Configuration

Select the Airgroup Profile that you created and then select the AirGroup Service container listed under the profile. In the AirGroup Service container select the blue plus sign to add the Airgroup service to the Airgroup profile.



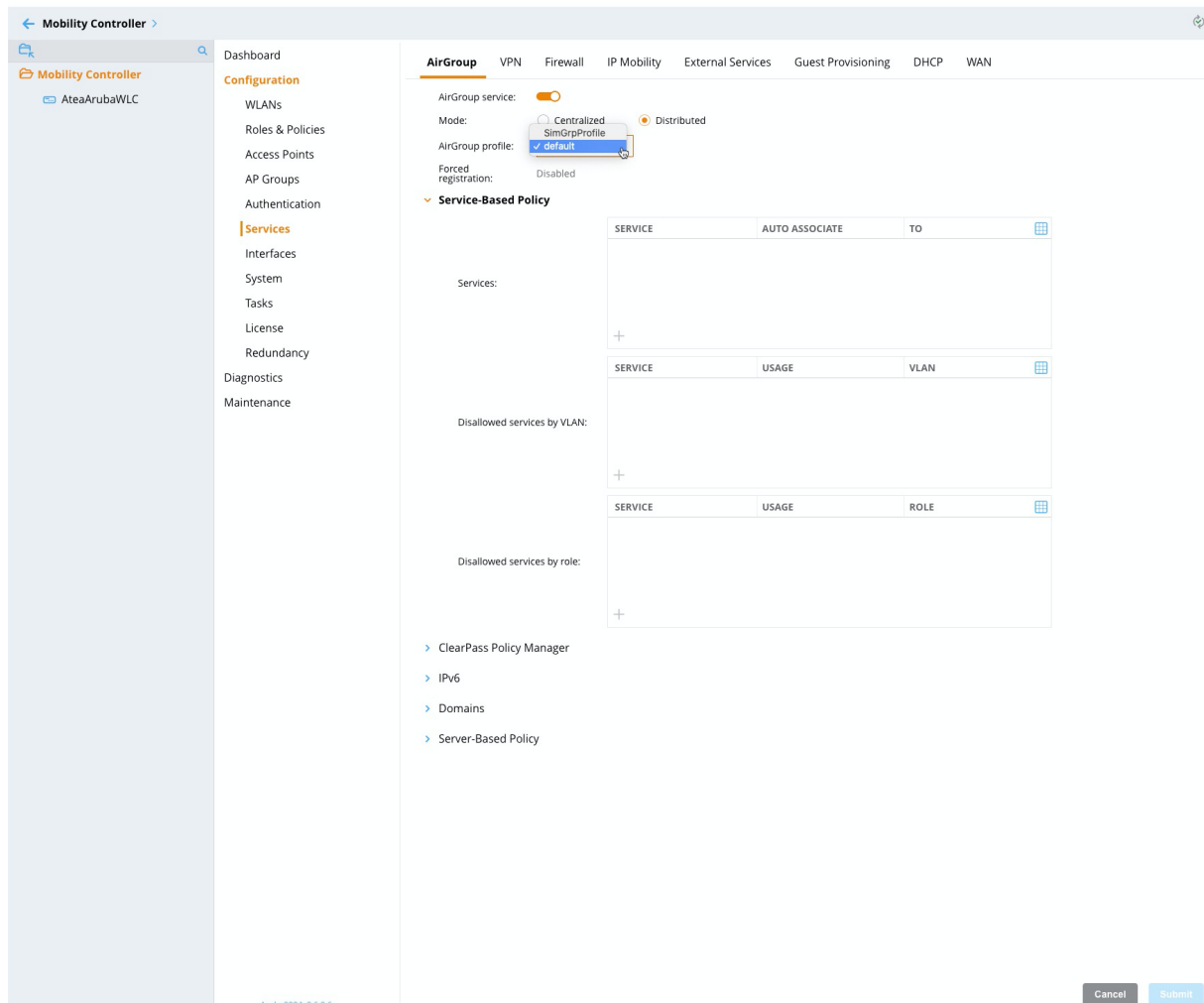
2.6 AirGroup Profile CLI Configuration Commands

The following commands can be used to create and associate the Airgroup service with the Airgroup Profile from the CLI.

```
airgroupprofile "SimGrpProfile"
  service "Laerdal_Srv"
  disallow-vlan type servers service ""
  disallow-role "" type servers service "
```

2.7 AirGroup Profile Enable Setting

To enable the AirGroup Profile on the controller select it from the dropdown menu and select Submit.



2.8 AirGroup Profile CLI Configuration Commands

The following commands can be used to enable the AirGroup Profile from the CLI.

```
airgroupprofile activate
airgroupprofile "SimGrpProfile" mode distributed
```