

DHCP with Vendor-Specific Options

A standards-compliant DHCP server can be configured to return the host Aruba controller's IP address through the Vendor-Specific Option Code (option 43) in the DHCP reply. In the Aruba user-centric network, this information can allow an Aruba AP to automatically discover the IP address of a master controller for its configuration and management. This appendix describes how to configure vendor-specific option 43 on various DHCP servers.

This appendix contains the following topics:

- "Overview" on page 735
- "Windows-Based DHCP Server" on page 735
- "Linux DHCP Servers" on page 737

Overview

DHCP servers are a popular way of configuring clients with basic networking information such as an IP address, a default gateway, network mask, DNS server, and so on. Most DHCP servers have the ability to also send a variety of optional information, including the Vendor-Specific Option Code, also called option 43.

Here is how option 43 works:

1. The DHCP client on an Aruba AP adds an optional piece of information called the Vendor Class Identifier Code (option 60) to its DHCP request. The value of this code is **ArubaAP**.
2. The DHCP server sees the Vendor Class Identifier Code in the request and checks to see if it has option 43 configured. If it does, it sends the Vendor-Specific Option Code (option 43) to the client. The value of this option is the loopback address of the Aruba master controller.
3. The AP receives a response from the DHCP server and checks if option 43 is returned. If it is, the AP contacts the master controller using the supplied IP address.

Windows-Based DHCP Server

Configuring a Microsoft Windows-based DHCP server to send option 43 to the DHCP client on an Aruba AP consists of the following two tasks:

- Configuring Option 60
- Configuring Option 43

Configuring Option 60

This section describes how to configure the Vendor Class Identifier Code (option 60) on a Microsoft Windows-based DHCP server.

As mentioned in the overview section, option 60 identifies and associates a DHCP client with a particular vendor. Any DHCP server configured to take action based on a client's vendor ID should also have this option configured.

Since option 60 is not a predefined option on a Windows DHCP server, you must add it to the option list for the server.

To configure option 60 on the Windows DHCP server

1. On the DHCP server, open the DHCP server administration tool by clicking **Start > Administrative Tools > DHCP**.
2. Find your server and right-click on the scope to be configured under the server name. Select **Set Predefined Options**.
3. In the Predefined Options and Values dialog box, click the **Add** button.
4. In the Option Type dialog box, enter the following information

Table 155 Configure option 60 on the Windows DHCP server

Field	Information
Name	Aruba Access Point
Data Type	String
Code	60
Description	Aruba AP vendor class identifier

5. Click **OK** to save this information.
6. In the Predefined Options and Values dialog box, make sure **060 Aruba Access Point** is selected from the Option Name drop-down list.
7. In the Value field, enter the following information:
String : ArubaAP
8. Click **OK** to save this information.
9. Under the server, select the scope you want to configure and expand it. Select **Scope Options** and expand it. Then select **Configure Options**.
10. In the Scope Options dialog box, scroll down and select **060 Aruba Access Point**. Confirm the value is set to **ArubaAP** and click **OK**.
11. Confirm that the option **060 Aruba Access Point** is listed in the right pane.

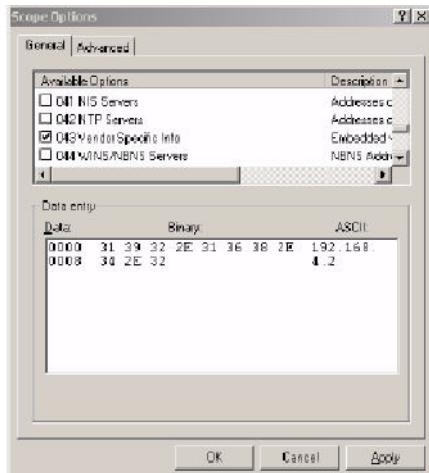
Configuring Option 43

Option 43 returns the IP address of the Aruba master controller to an Aruba DHCP client. This information allows Aruba APs to auto-discover the master controller and obtain their configuration.

To configure option 43 on the Windows DHCP server:

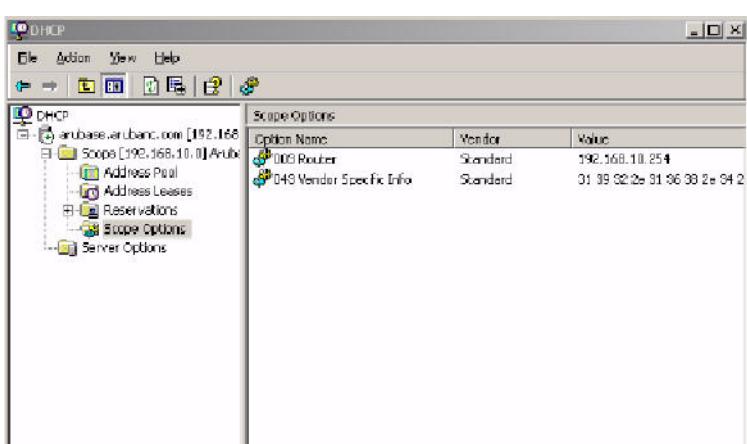
1. On the DHCP server, open the DHCP server administration tool by clicking **Start > Administration Tools > DHCP**.
2. Find your server and right-click on the scope to be configured under the server name. Click on the Scope Options entry and select **Configure Options**.
3. In the Scope Options dialog box ([Figure 190](#)), scroll down and select 043 Vendor Specific Info

Figure 190 Scope Options Dialog Box.



4. In the Data Entry field, click anywhere in the area under the ASCII heading and enter the following information:
ASCII : Loopback address of the master controller
 5. Click the **OK** button to save the configuration.
- Option 43 is configured for this DHCP scope. Note that even though you entered the IP address in ASCII text, it displays in binary form.

Figure 191 DHCP Scope Values



Linux DHCP Servers

The following is an example configuration for the Linux `dhcpd.conf` file.



After you enter the configuration, you must restart the DHCP service.

```
option serverip code 43 = ip-address;
class "vendor-class" {
    match option vendor-class-identifier;
}
.
.
.
subnet 10.200.10.0 netmask 255.255.255.0 {
    default-lease-time 200;
```

```
max-lease-time 200;
option subnet-mask 255.255.255.0;
option routers 10.200.10.1;
option domain-name-servers 10.4.0.12;
option domain-name "vlan10.aa.mycorpnetworks.com";
subclass "vendor-class" "ArubaAP" {
    option vendor-class-identifier "ArubaAP";
#
# option serverip <loopback-IP-address-of-master-controller>
#
    option serverip 10.200.10.10;
}
range 10.200.10.200 10.200.10.252;
}
```