

### 3.7.2.3 Microsoft Windows DHCP Server

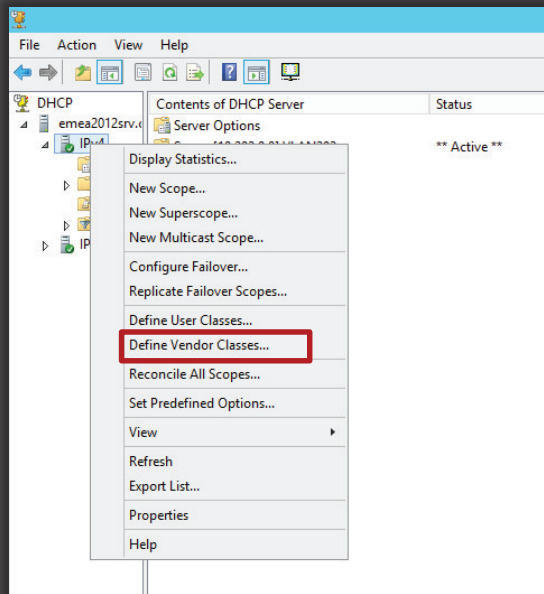
Microsoft Windows Server 2003 / 2008 / 2012 provide integrated DHCP services which may be deployed centrally in the data center or locally at each store. The Microsoft DHCP server supports the ability to assign option 191 values directly to each DHCP scope as well as globally across multiple scopes using the Vendor Class Identifier. When a Microsoft based DHCP server is utilized, the option 191 value must be assigned directly to each DHCP scope providing DHCP services to the Access Points Native VLAN.



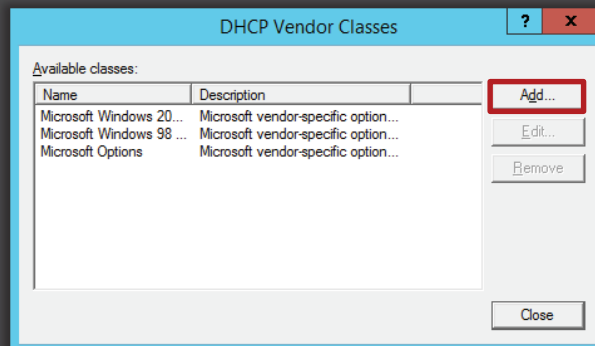
*Note – Please reference the relevant Microsoft documentation for assigning DHCP options globally across multiple scopes as this procedure varies by Windows Server version.*

Use the following procedure to create a Vendor Class Identifier and Predefined options 191 values on a Microsoft DHCP server that will assign DHCP option 191 and values from a specific DHCP scope:

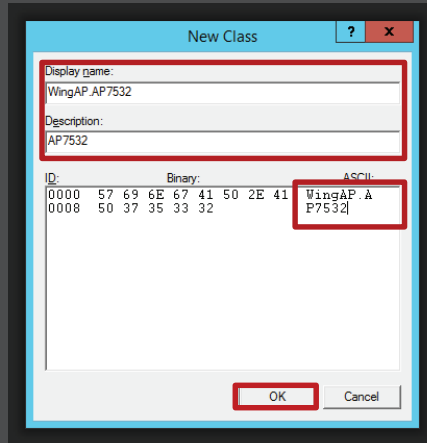
- 1 In the DHCP snap-in, right click on the *DHCP Server* icon then select *Define Vendor Classes*:



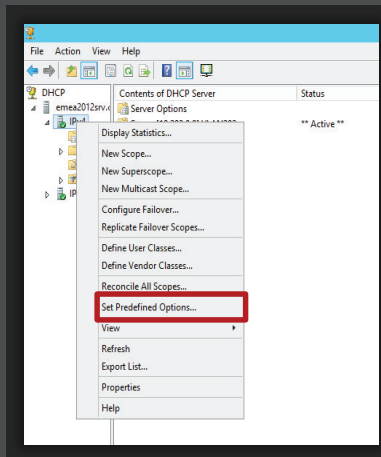
- 2 Click *Add*:



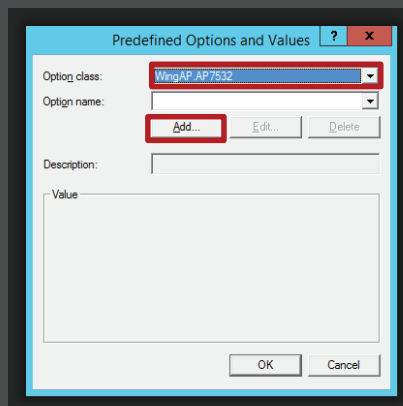
- 3 Enter the *Display Name* and *Description*. In the *ASCII* field type the *Vendor Class Identifier* for the Access Point model then click *OK*. Note in this example the Vendor Class for the AP 7532 Access Points *WingAP.AP7532* is defined:



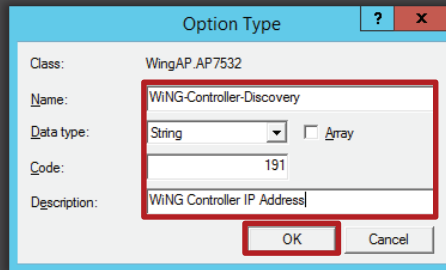
- 4 In the DHCP snap-in, right click on the *DHCP Server* icon then select *Set Predefined Options*:



- 5 Select the *Option class* name created earlier then click *Add*:

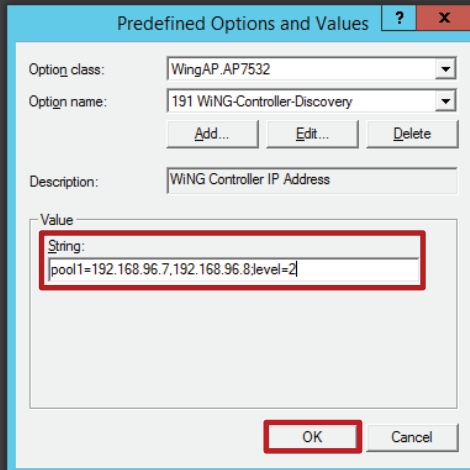


- 6 Enter a *Name* and *Description* for the option then set the *Data type* to *String*. In the *Code* field enter *191* then click *OK*:



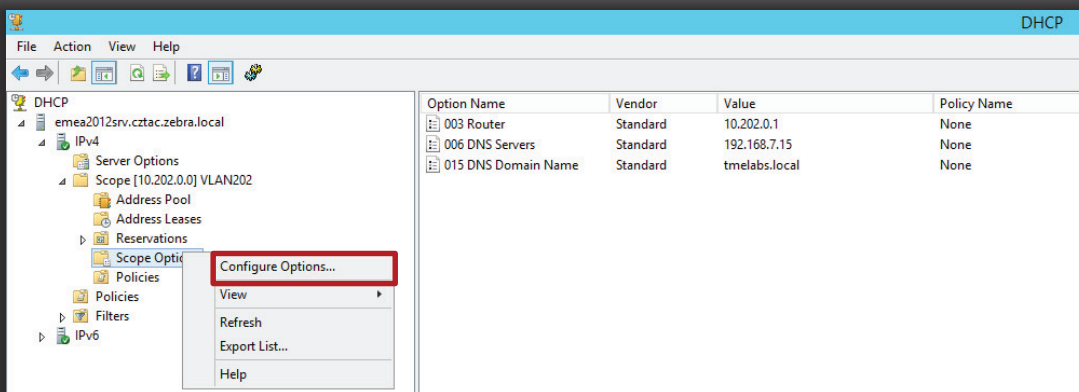
The 'Option Type' dialog box is shown with the following fields: Class: WingAP\_AP7532; Name: WING-Controller-Discovery; Data type: String; Code: 191; Description: WING Controller IP Address. The Name, Data type, Code, and Description fields are highlighted with a red box. The OK button is also highlighted with a red box.

- 7 In the *String* field enter the value to provide to the WiNG 5 Access Points. In this example AP 7532 Access Points will be provided the Wireless Controller IP addresses *192.168.96.7* and *192.168.96.8* and will establish *Level 2* IP based MINT links to the Wireless Controllers. Click *OK*:



The 'Predefined Options and Values' dialog box is shown with the following fields: Option class: WingAP\_AP7532; Option name: 191 WING-Controller-Discovery; Description: WING Controller IP Address. The Value field contains the text: String: pool1=192.168.96.7,192.168.96.8;level=2. The Value field and the OK button are highlighted with a red box.

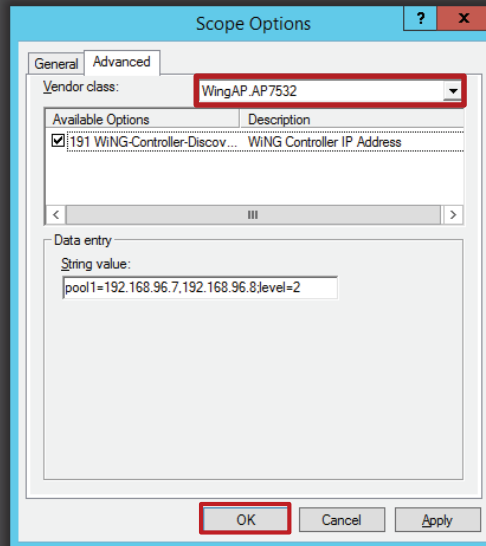
- 8 In the DHCP snap-in, select a DHCP scope then right click on *Scope Options* then select *Configure Options*:



The DHCP console screenshot shows a tree view on the left with 'Scope [10.202.0.0] VLAN202' selected. A right-click context menu is open over 'Scope Options', with 'Configure Options...' highlighted. The main pane shows a table of DHCP options:

Option Name	Vendor	Value	Policy Name
003 Router	Standard	10.202.0.1	None
006 DNS Servers	Standard	192.168.7.15	None
015 DNS Domain Name	Standard	tmelabs.local	None

- 9 Select the *Advanced* tab then under *Vendor class* select the *Vendor Class* name to assign to the DHCP scope. Click *OK*:



- 10 The *Vendor Class* and *Options* have now been assigned to a DHCP scope supporting the *Access Points Native VLAN* at one remote site:

