

Configure IPv6 Addresses on WAP551 and WAP561 Access Points

Objective

The Internet is in the process of transition from IPv4 to IPv6, which is the next generation IP address standard. IPv6 eliminates the address scarcity problem of IPv4, as IPv6 uses 128-bit addresses instead of the 32-bit addresses used in IPv4. Since these standards are in transition, sometimes both IPv4 and IPv6 functionality is desired in communication devices.

The objective of this document is to show you how to use the IPv6 Addresses page to configure IPv6 addresses on the WAP551 and WAP561. IPv6 addresses can be configured either dynamically by DHCP or manually.

Applicable Devices

- WAP551
- WAP561

Software Version

- v1.0.4.2 - WAP561

Configuration of IPv6 Addresses

Step 1. Log in to the Access Point Configuration Utility and choose **LAN > IPv6 Addresses**. The *IPv6 Addresses* page opens:

IPv6 Addresses

IPv6 Connection Type: DHCPv6
 Static IPv6

IPv6 Administrative Mode: Enable

IPv6 Auto Configuration Administrative Mode: Enable

Static IPv6 Address:

Static IPv6 Address Prefix Length: (Range: 0 - 128, Default: 0)

Static IPv6 Address Status:

IPv6 Autoconfigured Global Addresses:

IPv6 Link Local Address:

Default IPv6 Gateway:

IPv6 Domain Name Servers: Dynamic
 Manual

Step 2. Click the desired *IPv6 Connection Type* radio buttons.

IPv6 Addresses

IPv6 Connection Type: DHCPv6
 Static IPv6

IPv6 Administrative Mode: Enable

IPv6 Auto Configuration Administrative Mode: Enable

The options are described as follows:

- DHCPv6 — Dynamically assigns IPv6 address by the DHCP Server.
- Static IP — User assigns the IPv6 address.

Step 3. (Optional) If you wish to permit IPv6 management access to the access point check the **Enable** check box in the *IPv6 Administrative Mode* field.

IPv6 Addresses

IPv6 Connection Type: DHCPv6
 Static IPv6

IPv6 Administrative Mode: Enable

IPv6 Auto Configuration Administrative Mode: Enable

Step 4. (Optional) If you want the device to learn its IPv6 addresses and gateway automatically through router advertisements received on the LAN port, check the **Enable** check box in the *IPv6 Auto Configuration Administrative Mode* field. Access points can have multiple auto-configured IPv6 addresses.

IPv6 Addresses

IPv6 Connection Type: DHCPv6
 Static IPv6

IPv6 Administrative Mode: Enable

IPv6 Auto Configuration Administrative Mode: Enable

Note: If DHCPv6 is selected in Step 2, skip to [Step 8](#).

Step 5. Enter the desired IPv6 address for the access point in the *Static IPv6 Address* field. This is a unique IPv6 address in the network.

Static IPv6 Address:

Static IPv6 Address Prefix Length: (Range: 0 - 128, Default: 0)

Static IPv6 Address Status:

IPv6 Autoconfigured Global Addresses:

IPv6 Link Local Address:

Step 6. Enter the prefix length of the static address in the *Static IPv6 Address Prefix Length* field. The prefix length is an integer in the range of 0 to 128 which specifies the network portion of the IPv6 IP address. This is comparable to the subnet mask in IPv4.

Static IPv6 Address:

Static IPv6 Address Prefix Length: (Range: 0 - 128, Default: 0)

Static IPv6 Address Status:

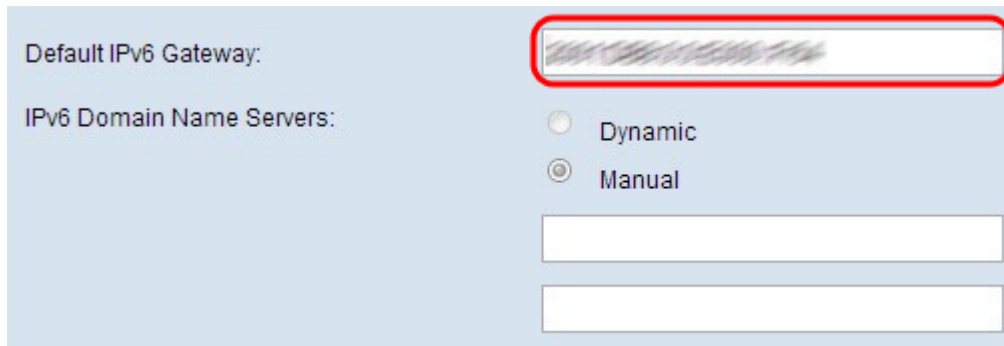
IPv6 Autoconfigured Global Addresses:

IPv6 Link Local Address:

Note: If one or more IPv6 addresses are assigned automatically, then those addresses are displayed in the *IPv6 Autoconfigured Global Addresses* field.

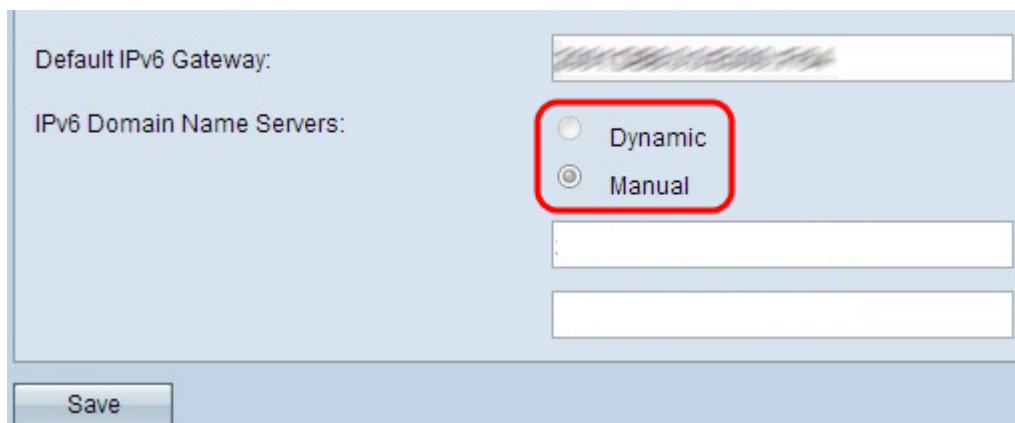
Note: The *IPv6 Link Local Address* field displays only local physical addresses within a segment. The link-local address is a locally specific IPv6 unicast address that can be automatically configured on any interface that uses the link-local prefix FE80::/10.

Step 7. Enter the IPv6 address of the default gateway in the *Default IPv6 Gateway* field. The default gateway is usually a router that connects the network to other larger networks such as the Internet. Data packets, whose addresses are not known or recognized, are sent to the default gateway.



The screenshot shows a configuration window with a light blue background. The 'Default IPv6 Gateway' field is highlighted with a red rectangular box. Below it, the 'IPv6 Domain Name Servers' section has two radio buttons: 'Dynamic' (unselected) and 'Manual' (selected). There are two empty text input fields below the radio buttons.

Step 8. If DHCPv6 is selected in Step 2, click on either the **Dynamic** or the **Manual** radio button to choose a method to assign the address of the *Domain Name Server*. If Dynamic is selected, skip to [Step 10](#).



The screenshot shows the same configuration window as in Step 7. The 'Dynamic' and 'Manual' radio buttons are highlighted with a red rectangular box. The 'Manual' radio button is selected. A 'Save' button is visible at the bottom left of the window.

The options are described as follows:

- Dynamic — DHCP Server dynamically assigns IPv6 address for DNS server.
- Static IP — User assigns the IPv6 address for DNS server manually.

Step 9. (Optional) If Static IP is selected in Step 2 or Manual is selected in Step 8, enter the DNS server address(es) in the *IPv6 Domain Name Servers* fields. Up to two domain name servers can be configured.

Default IPv6 Gateway:

IPv6 Domain Name Servers: Dynamic Manual

Step 10. Click **Save** to save the settings.

Default IPv6 Gateway:

IPv6 Domain Name Servers: Dynamic Manual