

Configure the Single Point Setup on the WAP581

Objective

A Wireless Access Point (WAP) connects to a router and serves as a node to the Wireless Local Area Network (WLAN). Clustering is when multiple WAPs are joined on the same network. This technology is advanced intelligence that allows them to work together dynamically and simplifies wireless networking. You will be able to configure and manage a clustered wireless network as a single entity, and without having to configure and reconfigure the settings in each access point separately. Up to ten WAPs can be clustered in a wireless network.

Each additional WAP installed on the network strengthens the wireless signal in areas that have weak or no signal. The WAP acts as a transmitter and receiver of WLAN radio signals, providing a larger wireless range as well as the ability to support more clients on a network.

This article aims to show you how to configure a cluster on a WAP through Single Point Setup.

Guidelines in configuring Single Point Setup:

1. A cluster can be created only among the same model of two or more WAPs, each of which has Single Point Setup enabled and reference the same Single Point Setup name.

Note: A cluster supports a group of up to 16 configured WAP581-only devices.

2. The cluster name is not sent to other WAPs that belong to a cluster. You must configure the same name on each device that is a member of the cluster.

3. The cluster name must be unique for each Single Point Setup that you configure on the network.

4. Single Point Setup works only with WAPs that are using the same type of IP addressing. Devices will not cluster if IP versions are not similar.

5. You cannot enable Single Point Setup if Wireless Distribution System (WDS) is enabled.

Applicable Devices

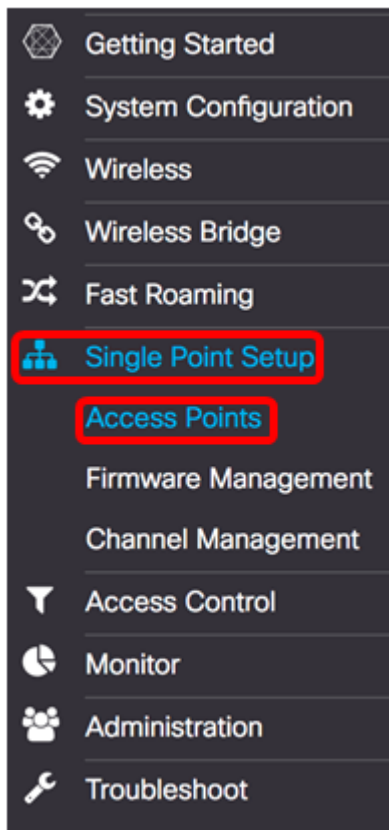
- WAP581

Software Version

- 1.0.0.4

Configure Single Point Setup

Step 1. Log in to one of the access point web-based utility and choose **Single Point Setup > Access Points**.



Step 2. Check the **Enable** Single Point Setup check box to enable Single Point Setup.

Note: By default, Single Point Setup is disabled on the WAP.

A screenshot of the 'Access Points' configuration page. The 'Single Point Setup' checkbox is checked and circled in red. Other fields include 'AP Location' (not set), 'AP Priority' (0), 'Cluster Name to Join' (ciscosb-cluster), 'Cluster IP Protocol' (IPv4 selected), and 'Cluster Management Address' (0.0.0.0).

Step 3. In the *AP Location* field, enter a description of where the WAP is physically located. The range is from 1 to 64 characters.

Note: In this example, Dimension C-137 is used.

Access Points

Single Point Setup: Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

Step 4. Enter the priority of the cluster for Dominant WAP (Cluster Controller) election in the *AP Priority* field. The higher number you set, the higher the chance for this WAP to become the Dominant WAP. In case of a tie, lowest Media Access Control (MAC) address becomes dominant.

Note: In this example, 2 is used.

Access Points

Single Point Setup: Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

Step 5. In the *Cluster Name to Join* field, enter the name of the cluster for the WAP to join.

Note: In this example, C-1998M is used.

Access Points

Single Point Setup: Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

Step 6. In the Cluster IP Protocol area, choose the IP version that the WAPs in the cluster will use to communicate with other members.

Note: In this example, IPv4 is chosen. This is the default clustering IP version.

Access Points

Single Point Setup: Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

Step 7. (Optional) To manage and access the cluster with a single IP address, you can enter a statically assigned IP address in the *Cluster Management Address* field.

Note: In this example, 192.168.100.52 is the Cluster Management Address.

Access Points

Single Point Setup: Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

The WAP will start to search for other WAPs in the subnet that are configured with the same cluster name and IP version.

Step 8. Click **Save**.

Access Points

Enable

AP Location:

AP Priority:

Cluster Name to Join:

Cluster IP Protocol: IPv4 IPv6

Cluster Management Address:

You should now have successfully configured Single Point Setup on the WAP581.