

Primary AP Tools

Objective

This article reviews the *Primary AP tools – Troubleshooting Tools* section of the web user interface.

If you are unfamiliar with terms in this document, check out [Cisco Business: Glossary of New Terms](#).

Applicable Devices | Firmware Version

- 140AC ([Data Sheet](#)) | 10.4.1.0 ([Download latest](#))
- 141ACM ([Data Sheet](#)) | 10.4.1.0 ([Download latest](#))
- 142ACM ([Data Sheet](#)) | 10.4.1.0 ([Download latest](#))
- 143ACM ([Data Sheet](#)) | 10.4.1.0 ([Download latest](#))
- 240AC ([Data Sheet](#)) | 10.4.1.0 ([Download latest](#))

Introduction

Diagnostic utilities make life easier by enabling easy access to understand the condition of a network. Tools included with these devices are:

Radius – Authenticates users entering the network via designated active directory server

HTTP-Proxy Socket – Tests both the port and IP address of a given HTTP proxy

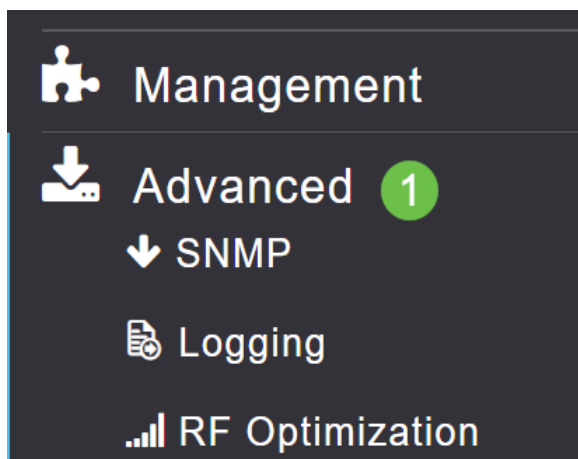
Ping – Attempts to verify connectivity between the device's IP address and an address designated by you

DNS – Domain Name Service - ensures connectivity to a designated DNS server

Getting to Primary AP Tools

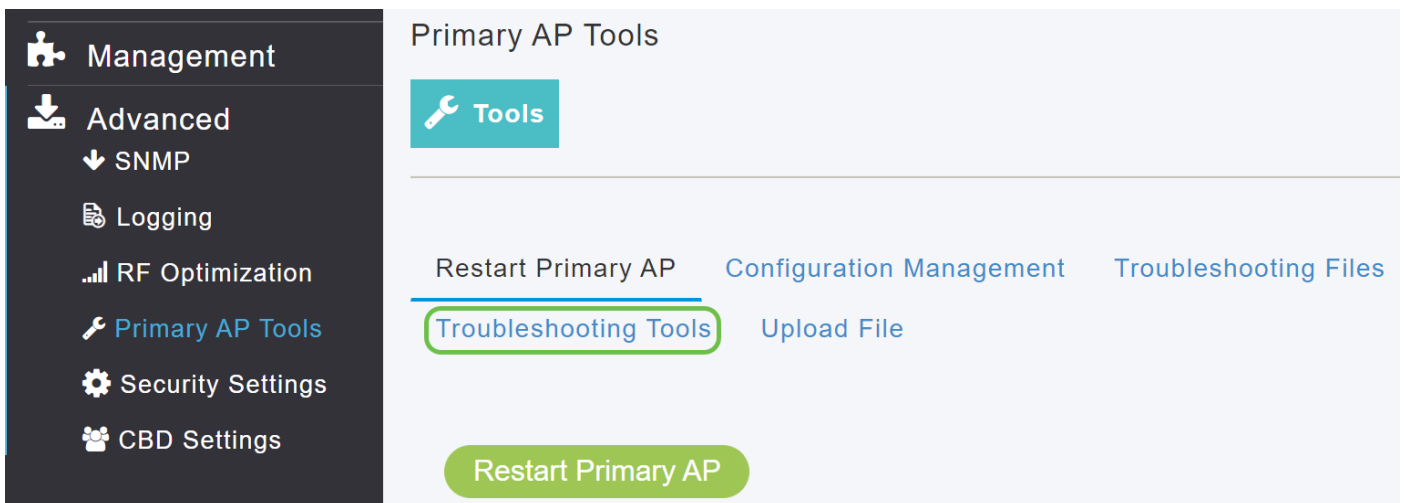
Step 1

Click **Advanced** > **Primary AP Tools**.



Step 2

Click the **Troubleshooting Tools** tab.



Primary AP Tools

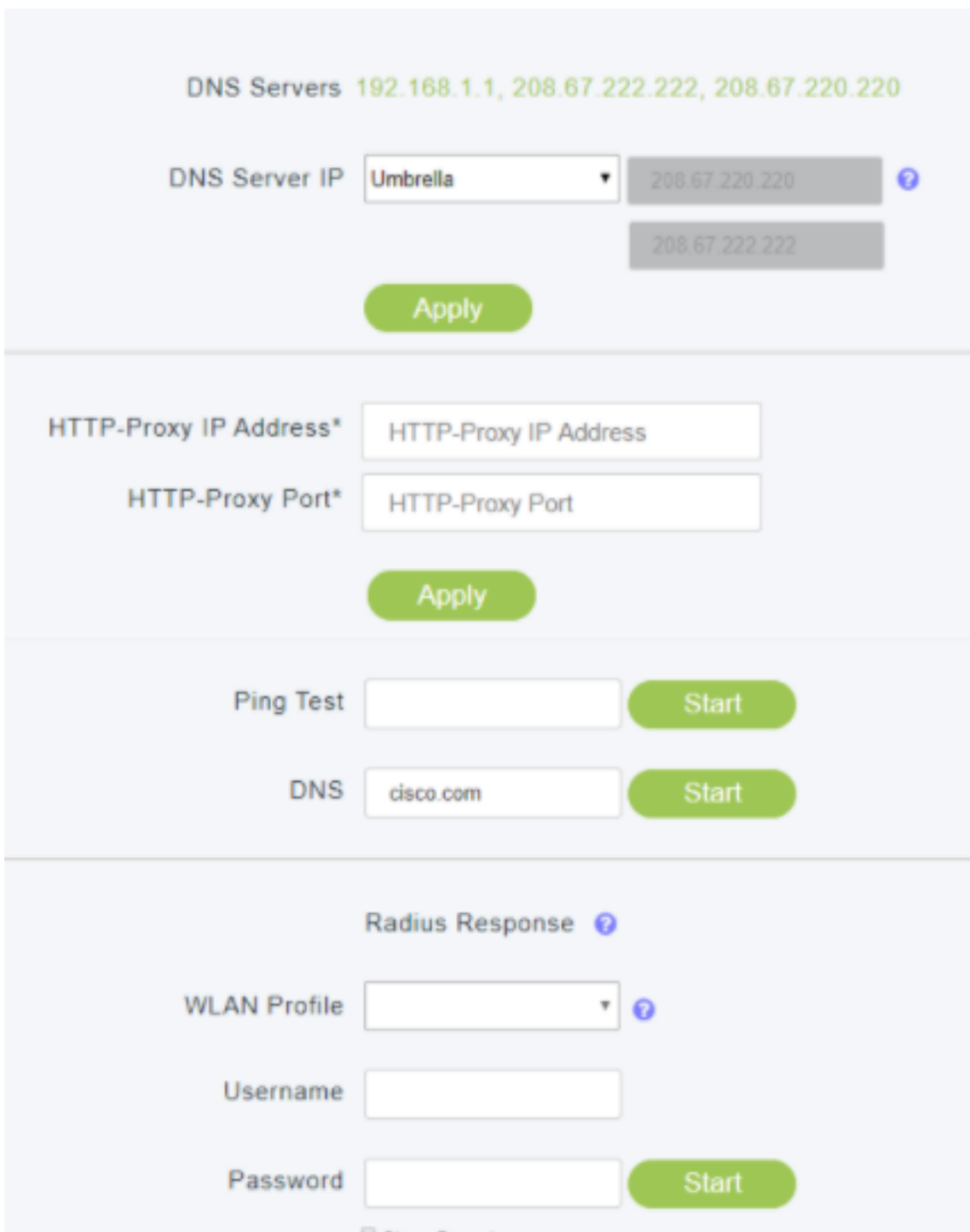
Tools

Restart Primary AP Configuration Management Troubleshooting Files

Troubleshooting Tools Upload File

Restart Primary AP

Once the page loads you will have the options noted in the introduction.



DNS Servers 192.168.1.1, 208.67.222.222, 208.67.220.220

DNS Server IP Umbrella 208.67.220.220 208.67.222.222

Apply

HTTP-Proxy IP Address* HTTP-Proxy IP Address

HTTP-Proxy Port* HTTP-Proxy Port

Apply

Ping Test Start

DNS cisco.com Start

Radius Response ?

WLAN Profile ?

Username


Password Start

Primary AP Tools – Radius

Radius is a common authentication method that most of our users will be familiar with. You can find the Radius configuration guide here: [Configure Radius](#)

Step 1

You must have created a wireless local area network profile WLAN; this step is covered in the above linked configuration guide. We've selected a *WLAN Profile* titled CBWEnterprise.



Radius Response ?

WLAN Profile

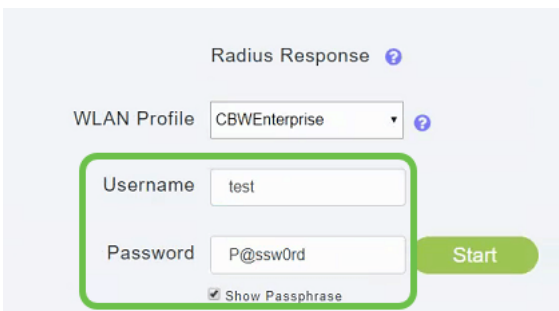
Username

Password

Show Passphrase

Step 2

Enter the **username** and **password** of a user that is located within the Active Directory server.



Radius Response ?

WLAN Profile


Username

Password

Show Passphrase

Step 3

Click **Start** to initiate the test.



Radius Response ?

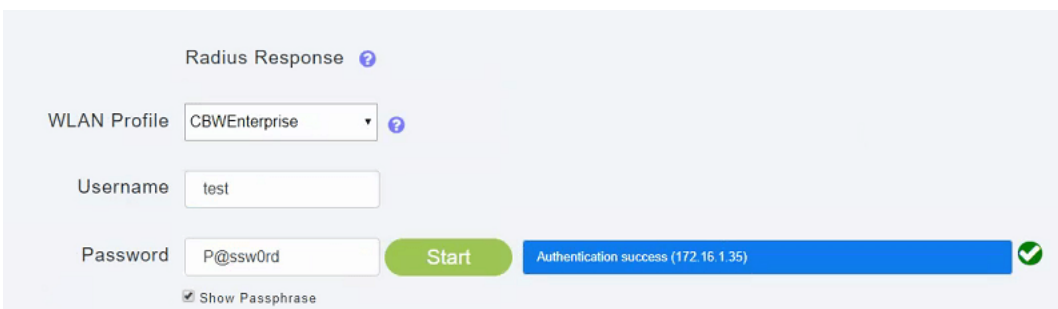
WLAN Profile

Username

Password

Show Passphrase

You will receive a notification of pass/fail.



Radius Response ?

WLAN Profile

Username

Password Authentication success (172.16.1.35) ✓

Show Passphrase

Primary AP Tools – Ping

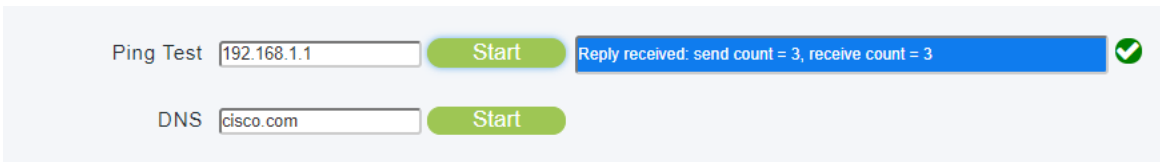
Step 1

Enter the **IP address** you intend to test, in our case we're pinging the IPv4 address 192.168.1.1.



Step 2

Click **Start**.



The test will either succeed or fail across 3 attempts.

Note: The Ping Test field accepts only IPV4 addresses. If you need to query a domain to confirm availability, use the DNS option.

Primary AP Tools – DNS

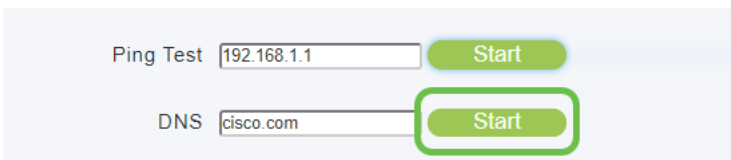
Step 1

Enter the **domain name** you wish to test, in our case we've left it at the default Cisco.com.

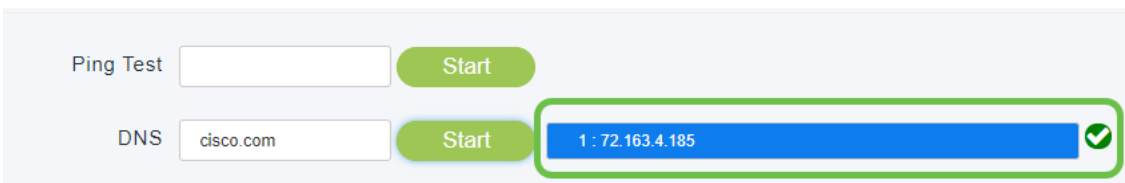


Step 2

Click **Start**.



The test will either succeed or fail.



Primary AP Tools – Test All

There is an option to “Begin All Tests”, in this case you could save a little time by filling in the Radius, Ping and DNS fields.

The screenshot displays a network testing interface with several sections:

- DNS Servers:** 192.168.1.1, 208.67.222.222, 208.67.220.220
- DNS Server IP:** A dropdown menu is set to "Umbrella". Below it are two input fields for IP addresses: "208.67.220.220" and "208.67.222.222". A green "Apply" button is located below these fields.
- HTTP-Proxy IP Address*:** An input field containing "HTTP-Proxy IP Address".
- HTTP-Proxy Port*:** An input field containing "HTTP-Proxy Port". A green "Apply" button is located below these fields.
- Ping Test:** An input field contains "192.168.1.1". A green "Start" button is next to it. To the right, a blue status bar shows "Reply received: send count = 3, receive count = 3" with a green checkmark.
- DNS:** An input field contains "cisco.com". A green "Start" button is next to it. To the right, a blue status bar shows "1 : 72.163.4.185" with a green checkmark.
- Radius Response:** A section header with a help icon.
- WLAN Profile:** A dropdown menu is set to "CBWEnterprise".
- Username:** An input field contains "test".
- Password:** An input field contains "*****". A green "Start" button is next to it. To the right, a blue status bar shows "Authentication success (172.16.1.35)" with a green checkmark.
- Show Passphrase:** A checkbox is currently unchecked.
- Start all tests:** A green button with a white border, highlighted with a red box.
- Clear:** A green button.

Conclusion

There you have it, the Primary AP Tools – Troubleshooting can be a quick and valuable means of testing basic connectivity of some of our most critical tools.

If you are interested in learning more about mesh wireless, check out any of the following articles:

[Intro to Mesh](#) [Mesh FAQ](#) [Cisco Business Wireless Model Decoder](#) [Reset to Factory Default](#) [Day Zero: Configure Via App / Web](#) [Mobile App vs Web UI](#) [Best Practices for a Cisco Business Wireless Mesh Network](#) [Allow Lists](#) [Update Software](#) [Get Familiar with the CBW App](#) [Troubleshooting](#) [Time Settings](#) [Troubleshoot Red LED](#) [Bridge Group Names](#)