

Generate Umbrella Diagnostic Tool Output

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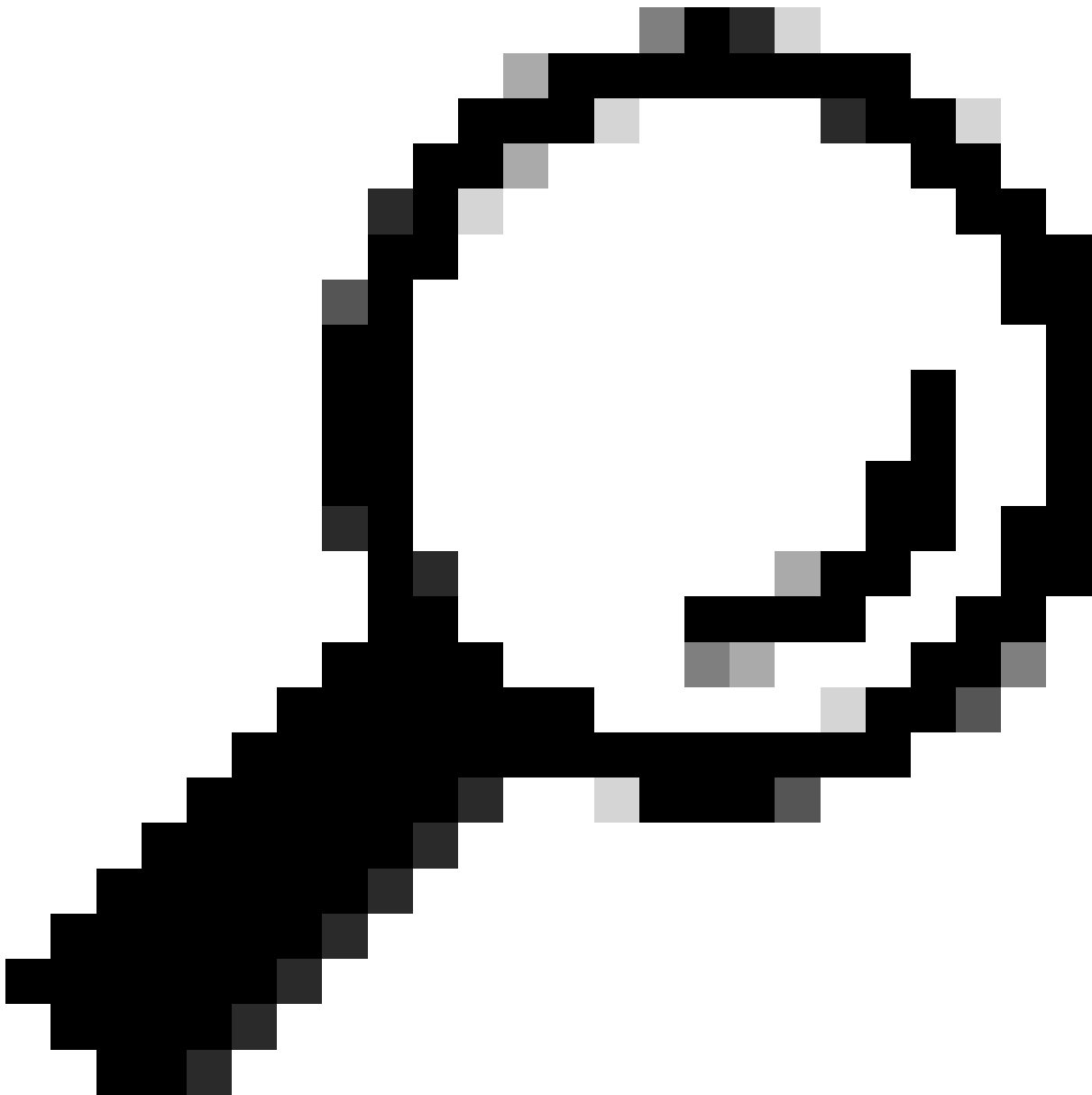
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Introduction

This document describes how to generate diagnostic tool output for Cisco Umbrella.

Overview

Support personnel often request diagnostic tool results when troubleshooting complex issues. Users can access the diagnostic tool in different ways depending on their Umbrella interaction.



Tip: These instructions are not for troubleshooting issues with Secure Web Gateway (SWG) Web Policies. Troubleshooting steps for SWG can be found in our article [Troubleshooting Umbrella Secure Web Gateway: Policy Debug and Diagnostic Tests](#).

Umbrella Roaming Client

If a user has the standalone Umbrella Roaming Client, a diagnostic tool is built in. To access it:

Windows

1. If using a version lower than 2.3.x, download the diagnostic client manually instead of running the built-in diagnostic.
2. Select the **Umbrella Roaming Client** icon in the system tray.
3. A status summary displays. Select the link that states **Run Diagnostic Tool**.

macOS

1. Click the **Umbrella Roaming Client** icon from the Menu Bar.
2. A status summary displays. Click the link at the bottom that states **Run Diagnostic Tool**.

Cisco AnyConnect Umbrella Roaming Module

For the Cisco AnyConnect Umbrella Roaming module, users must run two tools: the AnyConnect Diagnostics and Reporting Tool (DART) and the Roaming Client Umbrella Diagnostic tool.

Windows

1. Run the DART by using the instructions in the article [Gather Information for Basic Troubleshooting on Cisco AnyConnect Secure Mobility Client Errors](#).
2. Run the diagnostic executable located here: C:\Program Files (x86)\Cisco\Cisco AnyConnect Secure Mobility Client\UmbrellaDiagnostic.exe

macOS

1. Run the DART by using the instructions in the article [Gather Information for Basic Troubleshooting on Cisco AnyConnect Secure Mobility Client Errors](#).
2. Run the diagnostic executable located here: /opt/cisco/anyconnect/bin/UmbrellaDiagnostic.app
3. Copy the files from /opt/cisco/anyconnect/umbrella/data/beacon-logs/service/acumbrellacore* to the ticket.

Cisco Secure Client Umbrella Roaming Module

For the Cisco Secure Client Umbrella Roaming module, users must run two tools: the DART and the roaming client Umbrella Diagnostic tool.

Windows

1. Run the DART by using the instructions in the article [Gather Information for Basic Troubleshooting on Cisco AnyConnect Secure Mobility Client Errors](#).
2. Run the diagnostic executable located here: C:\Program Files (x86)\Cisco\Cisco Secure Client\UmbrellaDiagnostic.exe

macOS

1. Run the DART by using the instructions in the article [Gather Information for Basic Troubleshooting on Cisco AnyConnect Secure Mobility Client Errors](#).
2. Run the diagnostic executable located here: /opt/cisco/secureclient/bin/UmbrellaDiagnostic.app
3. Copy the files from /opt/cisco/secureclient/umbrella/data/beacon-logs/service/acumbrellacore* to the ticket.

Standalone Diagnostic Tool

If a user does not have the Roaming Client or AnyConnect, download and run the standalone diagnostic tool from the provided links. After downloading and launching the diagnostic tool, please see the next section for how to run it on your Operating System.

Microsoft Windows

Download the file, **UmbrellaDiagnostic.exe.zip** from [here](#):

- If the system prompts to download .NET 3.5, users can download this config file and place it in the same location as the Umbrella diagnostic tool EXE. This action stops the .NET 3.5 prompt.

macOS

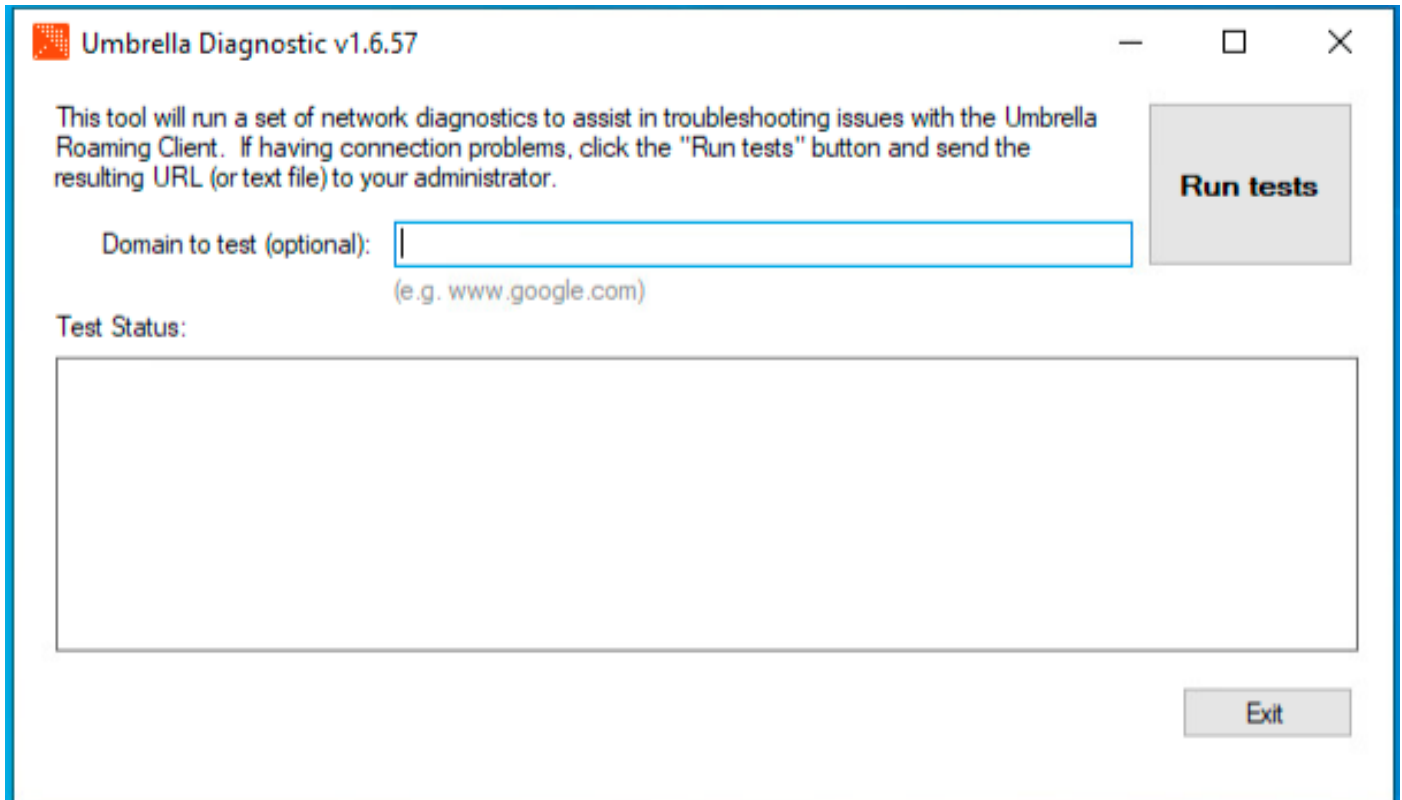
Download the file, **OpenDNSDiagnostic-mac-1.6.4.zip** from [here](#):

Linux

- No tool is available. Refer to Terminal instructions in the article Umbrella Diagnostic Tool: Terminal Instructions.

Run Diagnostic Tool on Microsoft Windows

When users first run the tool, it requests account information, ticket information, and a domain for testing. This information is optional, but if a specific domain is causing access issues, include it in the **Domain to test** field.



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1. To run the tool, select **Run tests**.
2. A file is created in C:\Windows\tmp or C:\Users\<username>\AppData\Local\Temp\. This file can then be provided to Umbrella Support.
Note that Diagnostic tools lesser than version 1.6.5 on Windows does not support cloud upload as of March 31, 2021. Please upload the generated file to support.

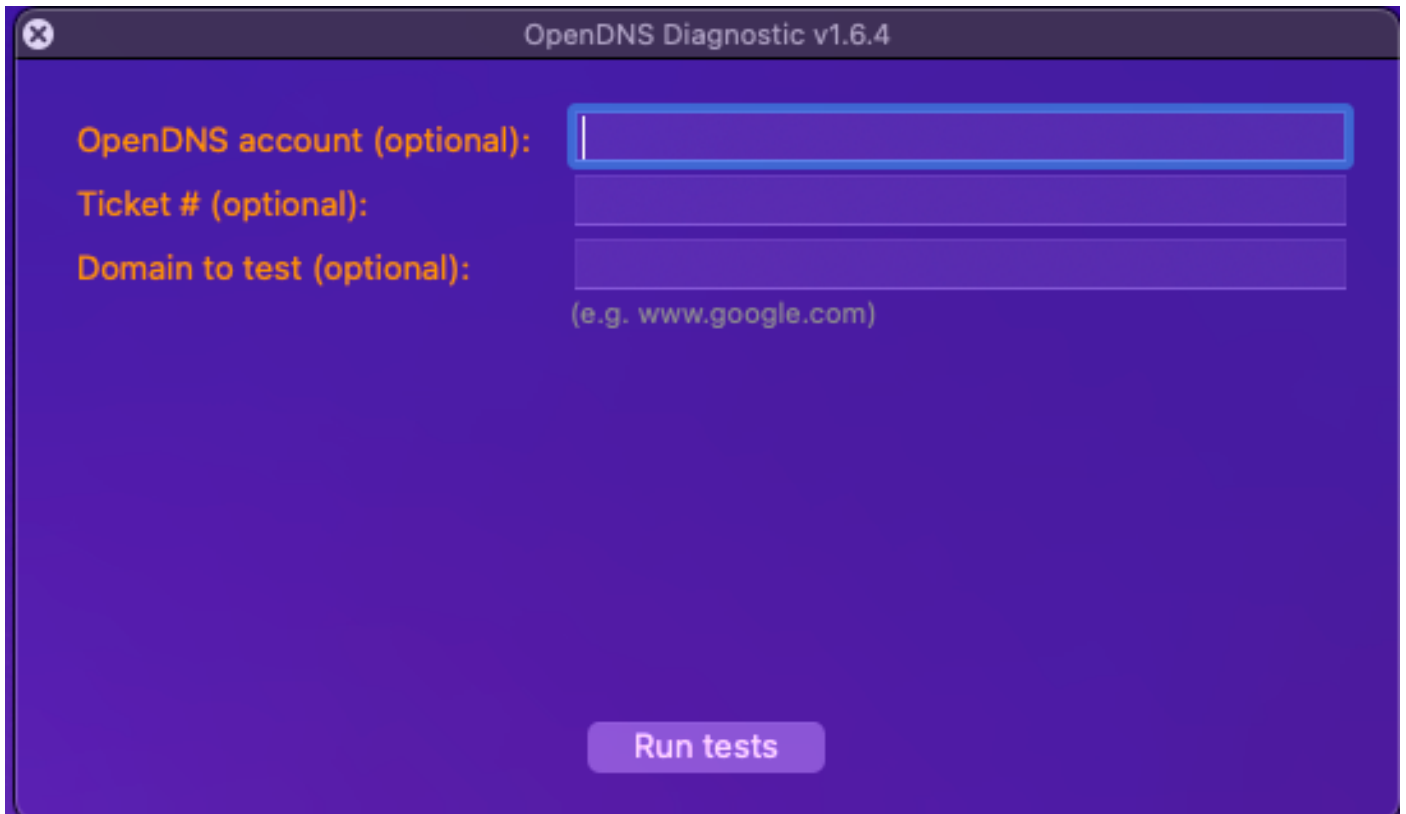
Diagnostics Tool Fails to Run

If the Diagnostic does not run, provide the results of the provided command prompt commands:

```
tracert 208.67.222.222
tracert 208.67.220.220
tracert api.opendns.com.
tracert bpb.opendns.com.
tracert block.opendns.com.
tracert hit-adult.opendns.com.
nslookup -timeout=10 -type=txt debug.opendns.com. 208.67.222.222
nslookup -timeout=10 -type=txt -port=5353 debug.opendns.com. 208.67.222.222
nslookup -timeout=10 -type=txt -port=443 debug.opendns.com. 208.67.222.222
nslookup -timeout=10 -type=txt debug.opendns.com.
ipconfig /all
systeminfo.exe
```

Run Diagnostic Tool on Apple macOS

When users first run the tool, it requests account information, ticket information, and a domain for testing. This information is optional, but if a specific domain is causing access issues, include it in the **Domain to test** field.



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1. To run the tool, select **Run tests**. The tests can take a few moments to complete.
2. A **diagnostic_results.txt** file is then generated. Please send this file to Umbrella support.

Manually Run Diagnostic Tests

If you would like to run the test manually, please issue the provided commands:

```
/usr/bin/dig +time=10 myip.opendns.com
/usr/sbin/traceroute -I -w 2 208.67.222.222
/usr/sbin/traceroute -I -w 2 208.67.220.220
/usr/sbin/traceroute -I -w 2 api.opendns.com
/usr/sbin/traceroute -I -w 2 bpb.opendns.com
/usr/sbin/traceroute -I -w 2 block.opendns.com
/usr/bin/dig @208.67.222.222 +time=10 debug.opendns.com txt
/usr/bin/dig @208.67.222.222 -p 5353 +time=10 debug.opendns.com txt
/usr/bin/dig +time=10 debug.opendns.com txt
/usr/bin/dig +time=10 whoami.akamai.net
/usr/bin/dig +time=10 whoami.ultradns.net
/usr/bin/dig @208.67.222.222 +time=10 myip.opendns.com
/usr/bin/dig @ns1-1.akamaitech.net +time=10 whoami.akamai.net
/usr/bin/dig @pdns1.ultradns.net +time=10 whoami.ultradns.net
/usr/bin/nslookup -timeout=10 -class=chaos -type=txt hostname.bind. 4.2.2.1
/usr/bin/nslookup -timeout=10 -class=chaos -type=txt hostname.bind. 192.33.4.12
/usr/bin/nslookup -timeout=10 -class=chaos -type=txt hostname.bind. 204.61.216.4
ping -n 5 www.opendns.com (www.opendns.com)
ping -n 5 rtr1.pao.opendns.com
```

```
ping -n 5 rtr1.sea.opendns.com
ping -n 5 rtr1.lax.opendns.com
ping -n 5 rtr1.chi.opendns.com
ping -n 5 rtr1.nyc.opendns.com
ping -n 5 rtr1.lon.opendns.com
ping -n 5 rtr1.mia.opendns.com
ping -n 5 rtr1.sin.opendns.com
ping -n 5 rtr1.fra.opendns.com
ping -n 5 rtr1.hkg.opendns.com
ping -n 5 rtr1.ams.opendns.com
ping -n 5 rtr1.ber.opendns.com
ping -n 5 rtr1.cdg.opendns.com
ping -n 5 rtr1.cph.opendns.com
ping -n 5 rtr1.dfw.opendns.com
ping -n 5 rtr1.otp.opendns.com
ping -n 5 rtr1.prg.opendns.com
ping -n 5 rtr1.ash.opendns.com
ping -n 5 rtr1.wrw.opendns.com
ping -n 5 rtr1.syd.opendns.com
ping -n 5 rtr1.jnb.opendns.com
ping -n 5 rtr1.yyz.opendns.com
ping -n 5 rtr1.yvr.opendns.com
ping -n 5 rtr1.nrt.opendns.com
/bin/ps wwaux
/sbin/ifconfig -a
/usr/sbin/scutil --dns
/usr/sbin/netstat -rn
/usr/bin/curl -Ls block.a.id.opendns.com/monitor.php
/usr/bin/curl -Ls -c /dev/null bpb.opendns.com/monitor/
```

Run Diagnostic Tool on Linux/Unix

To provide diagnostic information for a Linux/Unix machine, please run the provided commands and provide the results in your reply to the support ticket:

```
nslookup -type=txt debug.opendns.com.
nslookup -type=txt debug.opendns.com. 208.67.222.222
nslookup -type=txt debug.opendns.com. 208.67.222.222 -port=443
nslookup -type=txt debug.opendns.com. 208.67.222.222 -port=5353
traceroute 208.67.222.222
traceroute api.opendns.com.
traceroute bpb.opendns.com.
ifconfig
```

Test for a Specific Domain

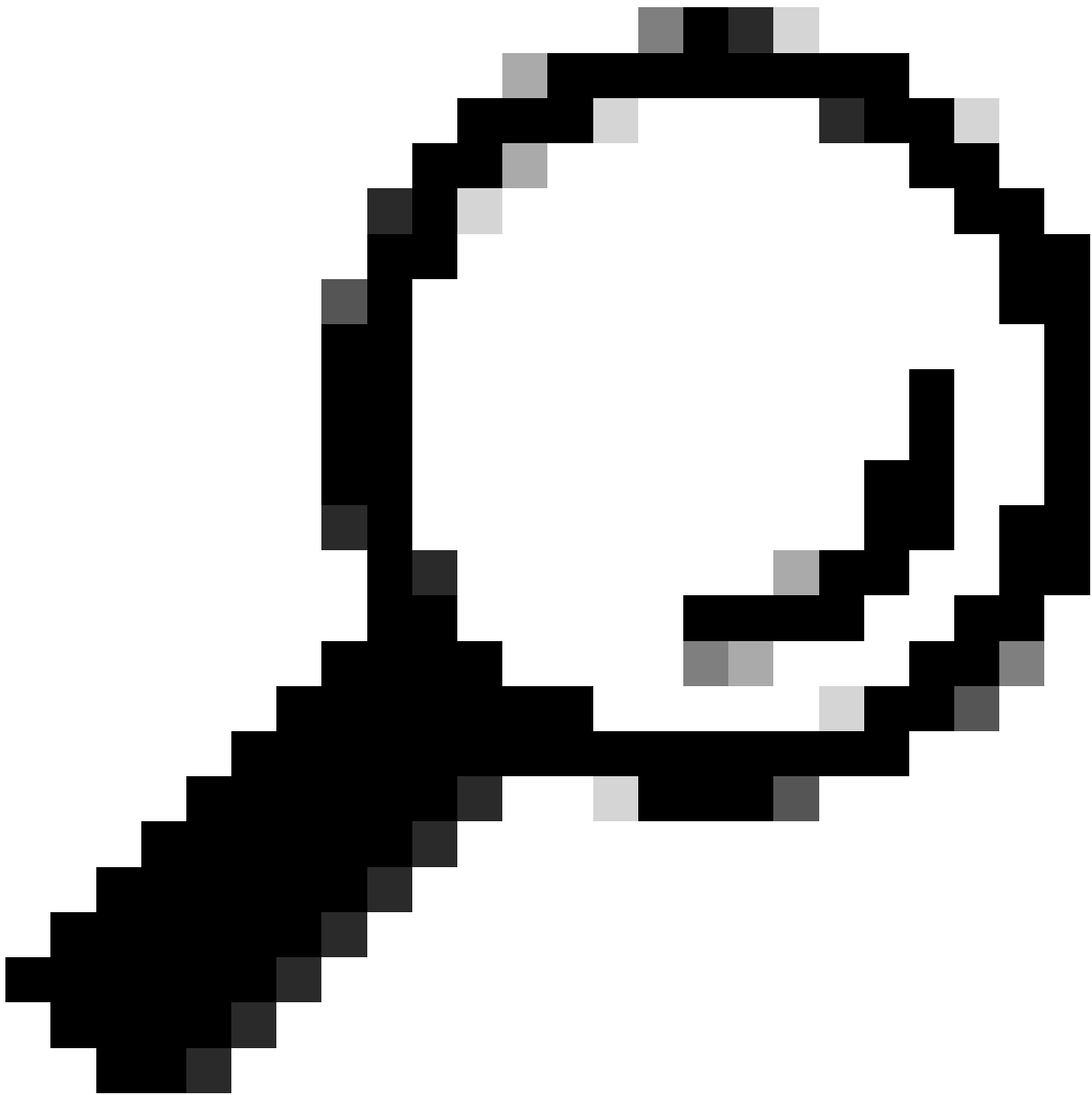
If you are asked to test for a specific domain, run the provided commands:

```
nslookup domain.com
nslookup domain.com 208.67.222.222
nslookup domain.com 208.67.220.220
```

```
nslookup domain.com 4.2.2.1
traceroute domain.com
```

Provided are two example screenshots of the results of these commands. Your results can appear similar, but are unique to your Umbrella dashboard.

```
anthony@ubuntu:~/Desktop$ traceroute facebook.com
traceroute to facebook.com (173.252.110.27), 30 hops max, 60 byte packets
 1  10.111.0.1 (10.111.0.1)  0.592 ms  0.656 ms  0.848 ms
 2  67.215.78.49 (67.215.78.49)  4.552 ms  4.474 ms  4.383 ms
 3  ae0-130.rtr1.sjc.opendns.com (67.215.78.5)  4.294 ms  4.241 ms  4.165 ms
 4  te-8-1.car2.SanJose1.Level3.net (4.28.12.197)  7.745 ms  7.677 ms  7.613 ms
 5  vlan80.csw3.SanJose1.Level3.net (4.69.152.190)  67.319 ms  67.371 ms  67.293 ms
 6  ae-81-81.ebr1.SanJose1.Level3.net (4.69.153.9)  67.219 ms  ae-82-82.ebr2.SanJose1.Level3.net (4.69.153.25)  66.177 ms  66.018 ms
 7  ae-2-2.ebr2.SanJose5.Level3.net (4.69.148.141)  65.632 ms  65.221 ms  ae-5-5.ebr1.SanJose5.Level3.net (4.69.148.137)  65.227 ms
 8  ae-1-100.ebr2.SanJose5.Level3.net (4.69.148.110)  65.174 ms  ae-6-6.ebr2.LosAngeles1.Level3.net (4.69.148.201)  65.001 ms  65.001 ms
 9  ae-3-3.ebr3.Dallas1.Level3.net (4.69.132.78)  65.961 ms  66.091 ms  ae-6-6.ebr2.LosAngeles1.Level3.net (4.69.148.201)  65.354 ms
10  ae-3-3.ebr3.Dallas1.Level3.net (4.69.132.78)  66.482 ms  65.498 ms  65.630 ms
11  * * ae-101-101.ebr1.Atlanta2.Level3.net (4.69.202.65)  65.077 ms
12  ae-102-102.ebr2.Atlanta2.Level3.net (4.69.202.69)  66.475 ms  ae-203-3603.edge5.Atlanta2.Level3.net (4.69.159.57)  64.874 ms  ae-101-101.ebr1.Atlanta2.Level3.net (4.69.202.65)  65.185 ms
13  FACEBOOK-IN.edge5.Atlanta2.Level3.net (4.28.26.46)  64.812 ms  ae-103-3503.edge5.Atlanta2.Level3.net (4.69.159.41)  65.022 ms  FACEBOOK-IN.edge5.Atlanta2.Level3.net (4.28.26.46)  65.280 ms
14  FACEBOOK-IN.edge5.Atlanta2.Level3.net (4.28.26.46)  64.829 ms  ae1.bb01.atl1.tfbnw.net (74.119.78.214)  65.735 ms  ae2.bb02.atl1.tfbnw.net (204.15.23.210)  65.588 ms
15  ae2.bb02.atl1.tfbnw.net (204.15.23.210)  65.485 ms  be26.bb02.frc3.tfbnw.net (31.13.27.112)  73.276 ms  ae16.bb03.frc3.tfbnw.net (31.13.27.110)  70.395 ms
16  be26.bb01.frc3.tfbnw.net (31.13.27.118)  71.395 ms  ae87.dr02.frc1.tfbnw.net (74.119.79.209)  71.616 ms  ae88.dr02.frc1.tfbnw.net (173.252.64.189)  71.076 ms
17  ae88.dr03.frc1.tfbnw.net (173.252.64.191)  73.283 ms  ae89.dr02.frc1.tfbnw.net (173.252.65.95)  71.459 ms  ae88.dr02.frc1.tfbnw.net (173.252.64.189)  71.007 ms
18  * * *
19  edge-star-shv-13-frc1.facebook.com (173.252.110.27)  70.928 ms  72.461 ms  72.923 ms
```



Tip: For more information, see our tutorial video on [Getting Started with DNS-Layer Security](#).
