

Monitoring Network Traffic Using Traceroute

Purpose Use the Traceroute page in the J-Web interface to trace a route between the switch and a remote host. You can use a traceroute task to display a list of waypoints between the switch and a specified destination host. The output is useful for diagnosing a point of failure in the path from the switch platform to the destination host and addressing network traffic latency and throughput problems.

Action To use the traceroute tool:

1. Select **Troubleshoot>Traceroute**.
2. Next to **Advanced options**, click the expand icon.
3. Enter information into the Traceroute page.

The **Remote Host** field is the only required field.

4. Click **Start**.
5. To stop the traceroute operation before it is complete, click **OK** while the results of the traceroute operation are being displayed.

Meaning The switch generates the list of waypoints by sending a series of ICMP traceroute packets in which the time-to-live (TTL) value in the messages sent to each successive waypoint is incremented by 1. (The TTL value of the first traceroute packet is set to 1.) In this manner, each waypoint along the path to the destination host replies with a Time Exceeded packet from which the source IP address can be obtained.

The results of the traceroute operation are displayed in the main pane. If no options are specified, each line of the traceroute display is in the following format:

```
hop-number host (ip-address) [as-number] time1 time2 time3
```

The switch sends a total of three traceroute packets to each waypoint along the path and displays the round-trip time for each traceroute operation. If the switch times out before receiving a Time Exceeded message, an asterisk (*) is displayed for that round-trip time.

Table 1: Traceroute field summary

| Field | Function | Your Action |
|-------------------------|---|---|
| Remote Host | Identifies the destination host of the traceroute. | Type the hostname or IP address of the destination host. |
| Advanced Options | | |
| Don't Resolve Addresses | Determines whether hostnames of the hops along the path are displayed, in addition to IP addresses. | To suppress the display of the hop hostnames, select the check box. |
| Gateway | Specifies the IP address of the gateway to route through. | Type the gateway IP address. |
| Source Address | Specifies the source address of the outgoing traceroute packets. | Type the source IP address. |

Table 1: Traceroute field summary *(continued)*

| Field | Function | Your Action |
|--------------------|---|--|
| Bypass Routing | Determines whether traceroute packets are routed by means of the routing table. If the routing table is not used, traceroute packets are sent only to hosts on the interface specified in the Interface box. If the host is not on that interface, traceroute responses are not sent. | To bypass the routing table and send the traceroute packets to hosts on the specified interface only, select the check box. |
| Interface | Specifies the interface on which the traceroute packets are sent. | From the list, select the interface on which traceroute packets are sent. If you select any, the traceroute requests are sent on all interfaces. |
| Time-to-live | Specifies the maximum time-to-live (TTL) hop count for the traceroute request packet. | From the list, select the TTL. |
| Type-of-Service | Specifies the type-of-service (TOS) value to include in the IP header of the traceroute request packet. | From the list, select the decimal value of the TOS field. |
| Resolve AS Numbers | Determines whether the autonomous system (AS) number of each intermediate hop between the router and the destination host is displayed. | To display the AS numbers, select the check box. |

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