Troubleshoot connectivity

This guide helps you determine whether a tunnel health alert is actually affecting your traffic. A degraded or down tunnel only matters if your traffic is currently routing through the Cloudflare data center where that tunnel is unhealthy.

Before you begin

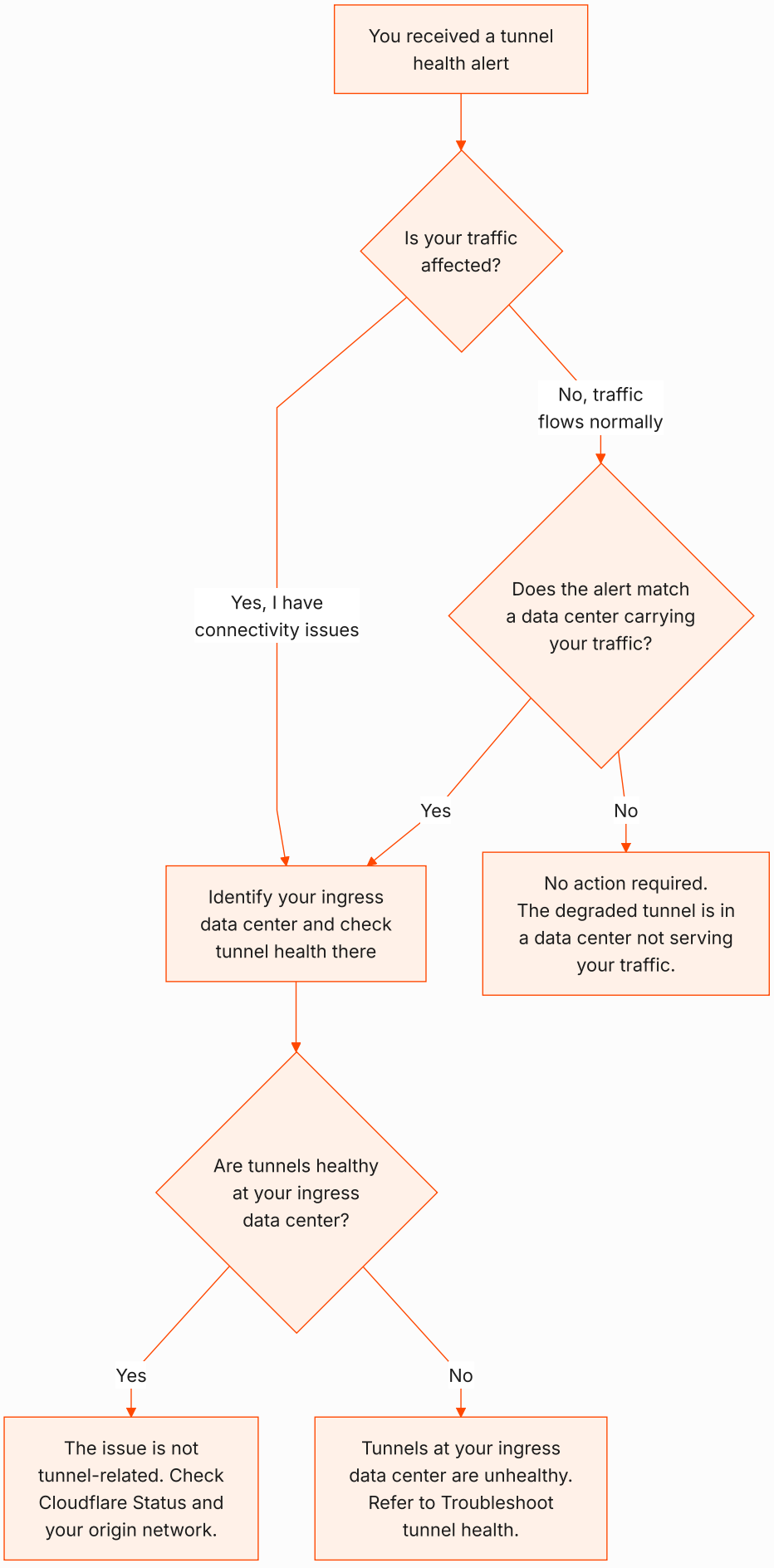
Understand how Cloudflare WAN health checks and traffic routing work:

- Health checks run independently from every Cloudflare data center.
- Each data center evaluates tunnel health based on its own probes.
- Traffic enters Cloudflare at the data center closest to the source (anycast routing).
- A degraded tunnel in a data center that is not handling your traffic has no impact on your connectivity.

If you are experiencing actual tunnel health issues (tunnels flapping, all tunnels down, or IPsec errors), refer to Troubleshoot tunnel health instead.

Diagnostic flowchart

Use this flowchart to determine whether a tunnel health alert requires action.


You received a tunnel health alert
Is your traffic affected?
Yes, I have connectivity issues
No, traffic flows normally
Does the alert match a data center carrying your traffic?
Yes
No
Identify your ingress data center and check tunnel health there
No action required. The degraded tunnel is in a data center not serving your traffic.
Are tunnels healthy at your ingress data center?
Yes
No
The issue is not tunnel-related. Check Cloudflare Status and your origin network.
Tunnels at your ingress data center are unhealthy. Refer to Troubleshoot tunnel health.

CONNECTIVITY TROUBLESHOOTING FLOWCHART

1. Identify your ingress data center

Determine which Cloudflare data center your traffic is entering. This is the only data center whose tunnel health status matters for your current connectivity.

Use traceroute

Run a `traceroute` from the source network to your Cloudflare WAN prefix. Look for the Cloudflare data center hostname in the trace output, which contains a three-letter IATA airport code ↗ that identifies the data center.

```sh
traceroute 203.0.113.1
```

```
1  192.168.1.1 (192.168.1.1)  1.234 ms
2  10.0.0.1 (10.0.0.1)  5.678 ms
3  198.51.100.1 (198.51.100.1)  10.123 ms
4  198.51.100.10 (198.51.100.10)  12.345 ms
5  lhr01.cf (198.51.100.11)  15.678 ms
```

In this example, `lhr` indicates that traffic enters Cloudflare at the London (Heathrow) data center.

Use the Cloudflare dashboard

You can identify which data centers handle your traffic by using **Network Analytics**.

1. Go to the **Network Analytics** page.

   Go to Network analytics ↗

2. Select **Add filter** and filter traffic by your source IP addresses to isolate your traffic.

3. Under **Packets summary**, select the **Source data center** tab. If the tab is not visible, select the three-dot menu (`...`) to reveal additional view options and select **Source data center**.

4. Review the per-data-center traffic breakdown to identify which Cloudflare data centers are handling your traffic.

5. Cross-reference these data centers with the tunnel health status on the Connector health page. If tunnels are healthy at the data centers carrying your traffic, a degraded tunnel alert for a different data center is not the cause of your connectivity issue.

2. Correlate with Cloudflare status

If your tunnels are healthy at the relevant data center but you still experience connectivity issues, check for broader platform issues.

1. Go to Cloudflare Status ↗.
2. Look for any active incidents or maintenance at the data center you identified.
3. Check for any incidents that might affect your traffic, such as outages related to networking, BYOIP, or the services your configuration depends on.

3. Gather information for support

If you have worked through this guide and cannot resolve the issue, gather the following information before contacting Cloudflare support.

Required information

1. **Account ID** and **tunnel name(s)** affected
2. **Timestamps** (in UTC) when the issue started
3. **Ingress data center** you identified (airport code, for example `LHR`, `IAD`)
4. **Symptoms observed:**
    - Whether user traffic is affected or only health check alerts fired
    - Which tunnels and data centers show degraded or down status
    - Whether the issue is intermittent or persistent

Helpful diagnostic data

- **Traceroute output** from your source network to your Cloudflare WAN prefix
- **Dashboard screenshots** showing tunnel health at the relevant data center
- **Distributed traceroutes** using tools like ping.pe ↗ to test reachability from multiple global locations
- **Packet captures** from your router if traffic loss is confirmed

Related resources

- Troubleshoot tunnel health: Resolve common tunnel health issues (flapping, IPsec errors, stateful firewall drops).
- Troubleshoot routing and BGP: Diagnose routing and BGP issues that affect traffic delivery.
- Check tunnel health in the dashboard: Monitor tunnel status per data center.
- Tunnel health checks: Technical details on how health checks work.
- Network Analytics: Analyze traffic patterns over time.