

Problem Overview

- **Problem Title:** DNS misconfiguration caused DNS failure
- **Reported By:** Daysean M
- **Date & Time Reported:** 07/29/2025 Morning
- **Device(s) Affected:** Core-Router, Net-B-Router & All devices on Net A & B
- **Symptoms:**
 - Users on Net A & B cannot browse the internet but can ping websites
 - Users on Net B cannot ping Users on Net A
- **Recent Changes:** Changed this DNS server on Core-Router
- **Steps to Reproduce (if known):** Misconfigure the DNS in the **Network-A-Router**:
 - Log into the Core-Router > Advanced > Network Settings > Network Connections > click on edit next to Broadband Connection (Ethernet) > scroll > settings > scroll > IPv4 DNS: click and select “use the following IPv4 DNS Addresses” > type in a DNS server > click Apply

Establish a Theory of Probable Cause

- **Initial Hypothesis:** DNS misconfiguration
- **Reasoning/Approach:**
 - **Reasoning:** After I changed the DNS server on Core-Router Users couldn't access the internet “no internet connection” was displayed when devices tried to access [google.com](https://www.google.com)

Test the Theory to Determine the Cause

- **Tests Performed:**
 - Pinged [google.com](https://www.google.com) on end devices
 - Checked the **Core-Router & Net-B-Router** firewall configs
 - Used **ipconfig /all** to check IP config of end devices
 - **Pinged** device on Net-A from Net-B and vice versa
 - **Pinged** Comp-b from Core-Router & Pinged
 - Called my ISP about the DNS server changes I made on the Network-A-Router
- **Test Results:**
 - Request timed out from the pinging [google.com](https://www.google.com)
 - ISP technician told me, I cant change the DNS server on Network-A-Router because verizon home networks uses dynamic DNS servers
- **Theory Status:**
 - confirmed

Solution: Factory reset Network-A-Router

- **Effects:** lose configuration on Core-Router if not backed up

Verify Full System Functionality and Implement Preventive Measures

- **Verification Steps:**

- Successfully pinged [google.com](https://www.google.com) on devices on Net-A & Net-B
- Successfully accessed [google.com](https://www.google.com) in a web browser

- **Preventive Measures:**

- Don't test in production network, backup network configurations

