# Network Connectivity Troubleshooting

This playbook offers a methodical approach for diagnosing and solving both wired and wireless network connectivity issues. It provides step-by-step procedures to identify and fix common network problems.

### Step 1: Verify Hardware

Check all physical network connections. Ensure cables are securely connected, power indicators on modems and routers are lit, and devices are powered on.

### Step 2: Check Configuration

Review the network settings on your device to make sure it is configured to obtain an IP address automatically unless you are using a static IP address.

### Step 3: Network Adapter Check

Examine your network adapter settings and drivers through the device manager to ensure proper functioning. Update drivers if necessary.

### Step 4: Ping Test

Perform a ping test to your router, local devices, and external websites to determine if there's packet loss or a specific point of failure.

### Step 5: Troubleshoot Router

Restart the router and modem if needed. Check for firmware updates and consider a factory reset if other methods fail to resolve the issue.

### Step 6: OS Network Tools

Use built-in operating system network troubleshooters to diagnose and potentially resolve detected problems.

### Step 7: Alternative Devices

Attempt to connect to the network with a different device. If successful, the issue may be with the initial device's hardware or software.

### Step 8: Check for Interference

In case of wireless connectivity issues, check for sources of interference such as large metal objects, other wireless devices, or appliances that emit radio waves.

### Step 9: Contact ISP

If the issue persists and you suspect it could be from the internet service provider's side, contact their support for further assistance.

## General Notes

### Backup Data

Before applying extensive troubleshooting steps that might affect system data, ensure to backup important files.

### Safety First

When checking cables and hardware, always ensure your safety. Do not attempt repairs or adjustments to hardware you are not familiar with.

### Document Changes

Keep track of any settings changes or actions performed during troubleshooting to avoid further complications and to have a reference in case of future issues.