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.