TROUBLESHOOTING CHECKLIST FOR IT SUPPORT

PART 1: IDENTIFYING COMMON IT ISSUES

1. Hardware Issues:

Power Issues:

- Computer won't turn on.
- Power LED not lighting up.
- Device not receiving power.

Peripherals Problems:

- Mouse or keyboard not responding.
- Printer not printing.
- External drives not detected.

Screen/Display Problems:

- Monitor won't display.
- Flickering or distorted screen.
- No signal on monitor.

Component Failure:

- Computer is slow due to insufficient RAM.
- Hard drive failure or disk errors.
- Overheating due to clogged fans or poor ventilation.

Sound Issues:

- No sound from speakers/headphones.
- Audio driver problems.

2. Software Issues:

Operating System Errors:

- Blue Screen of Death (BSOD).
- OS not booting.
- Slow performance after OS update.

Application Issues:

- App crashes unexpectedly.
- App not opening.
- Compatibility issues with OS.

Updates and Patches:

- Software updates failing to install.
- Update causing compatibility issues.

Malware/Virus Problems:

- System slowdowns.
- Unauthorized pop-ups or system messages.
- Security breaches detected.

3. Network and Connectivity Issues:

Connection Problems:

- No internet connection.
- Limited or no connectivity (Wi-Fi or Ethernet).
- Unstable connection.

DNS and IP Configuration Issues:

- DNS errors when accessing websites.
- IP address conflict or misconfiguration.

Slow Network:

- Slow Wi-Fi or wired network speeds.

- Network congestion or excessive bandwidth usage.

4. User-Related Issues:

Account Access Problems:

- Forgotten or incorrect password.

- User account locked.

- Permission issues (access denied to resources).

Basic User Errors:

- Misconfigured settings (e.g., incorrect device settings).

- Unfamiliar with software functionalities.

Training Needs:

- Need for training on basic operations or software use.

PART 2: TROUBLESHOOTING CHECKLIST

1. Hardware Troubleshooting

Power Issues

- Check if the power cable is securely plugged into the device and power outlet.
- Inspect the power supply (replace if faulty).
- Confirm that the power button is functioning (press and hold to test).
- Verify the power LED indicators (if applicable).

Peripherals (Mouse/Keyboard/Printer)

- Check connections (USB or wireless).
- Test with another device (e.g., another keyboard or mouse).
- Ensure device drivers are installed and up to date.

- Verify printer status and paper supply.

- For wireless devices, check batteries or signal interference.

Display Issues

- Check monitor cable connection (HDMI, VGA, etc.).

- Ensure monitor power is on and indicator light is visible.

- Test with another monitor or device.

- Verify display settings (resolution, refresh rate).

- If using an external GPU, verify connections and settings.

Component Failure (RAM, Hard Drive, Overheating)

- Run hardware diagnostics (memory test, disk health check).

- Inspect for physical damage to components.

- Ensure adequate cooling (clean fans, thermal paste, airflow).

- Test RAM with known working modules.

- Check for hard drive errors (CHKDSK on Windows, Disk Utility on Mac).

Sound Issues

- Verify sound settings (mute status, volume level).

- Check sound output device settings.

- Update or reinstall audio drivers.

- Test with headphones or external speakers.

2. Software Troubleshooting

- Operating System Errors
- Boot in Safe Mode (for Windows) or Recovery Mode (for Mac).
- Check system logs (Event Viewer, Console).
- Repair system files (e.g., sfc /scannow on Windows).
- Perform a system restore or rollback update.

Application Errors

- Close and reopen the application.
- Check for application updates or patches.
- Reinstall the application.
- Verify system requirements and compatibility.
- Check for conflicting software (antivirus, firewalls, etc.).

Updates and Patches

- Verify internet connectivity.
- Check for available updates and install them.
- Manually download and install patches from trusted sources.
- Rollback problematic updates if the system becomes unstable.

Malware/Virus Detection

- Run a full system antivirus scan.
- Use a secondary malware removal tool (e.g., Malwarebytes).
- Boot into Safe Mode to perform the scan.
- Delete any detected threats and quarantine files if needed.

3. Network and Connectivity Troubleshooting

Connection Problems

- Verify physical connections (cables, routers, modems).
- Restart the modem and router.
- Check Wi-Fi status and restart the device.
- Test connection with another device (e.g., phone or laptop).

DNS and IP Issues

- Flush DNS cache (ipconfig /flushdns on Windows).
- Release and renew IP address (ipconfig /release and ipconfig /renew).
- Manually set DNS (use Google DNS: 8.8.8.8 and 8.8.4.4).
- Check for IP address conflicts on the local network.

Slow Network

- Test speeds using a speed test tool (e.g., Speedtest.net).
- Check for excessive bandwidth usage (large downloads or streaming).
- Test with a wired connection if on Wi-Fi.
- Optimize Wi-Fi settings (change channels, reduce interference).

4. User-Related Troubleshooting

- Account Access Problems
- Verify username and password.
- Use password reset options (email, security questions).
- Check for account lockout status or administrator restrictions.
- Test from another device/browser to ensure it's not a device-specific issue.

Basic User Errors

- Walk through steps to ensure settings are correctly configured.
- Check for user error (wrong input, settings, etc.).
- Provide simple explanations of the task at hand.

Training Needs

- Offer resources or tutorials on common software or tasks.
- Schedule a training session or provide written guides.
- Create documentation for frequent issues or workflows.

5. Documentation and Reporting

- Documenting the Troubleshooting Process
- Record steps taken to identify and resolve the issue.
- Log error messages, warnings, and other relevant details.
- Take screenshots or notes if applicable.

Creating Incident Reports

- Provide a detailed summary of the issue.
- List the troubleshooting steps and solutions provided.
- Identify any further actions needed (e.g., escalation, future monitoring).

PART 3: PRACTICAL APPLICATION

Simulation Exercise

Scenario:
A user reports that they cannot access their printer via the network. They are unable to print any documents despite the printer being connected to the network.

Steps Taken:

Hardware Troubleshooting:

- Verified that the printer is powered on and connected to the network.
- Checked cables and connections.
- Restarted the printer and the user's device.

Software Troubleshooting:

- Verified printer drivers were installed correctly.
- Checked for updates and reinstalled the drivers.
- Verified the default printer settings on the user's computer.

Network Troubleshooting:

- Checked the printer's IP address and confirmed it was on the same subnet as the user's device.
- Ran a ping test to the printer's IP address (successful).
- Restarted the router to rule out network issues.

User-Related Troubleshooting:

- Verified the user had the correct permissions to access the printer.
- Walked the user through selecting the printer as the default.

Solution: The issue was resolved by reinstalling the printer drivers and ensuring the user had selected the correct default printer. The printer was then accessible on the network.

Reflection:

The checklist provided a structured approach that helped resolve the issue systematically. The most challenging part was confirming network settings, but the checklist helped narrow down the troubleshooting steps quickly. An improvement could be adding more specific troubleshooting for wireless printer issues (e.g., checking for signal interference).