# CompTIA A+ (220-802) - Domain 4 Troubleshooting Study Guide
Brought to you by RMRoberts.com

The troubleshooting section of the CompTIA A+ can be full of surprises. Your best source of objective troubleshooting information about troubleshooting operating system problems is the Microsoft website resources. When conducting an Internet search related to CompTIA A+ test objectives, always include the following two words in the search terms, "Microsoft Support". Look for search results that have the Microsoft website identified in the reference link. For example when researching the CompTIA A+ objective related to NTLDR error, use the search terms "Microsoft Support NTLDR missing," and then look for search results that have "**support.microsoft**" indicated in the website URL.
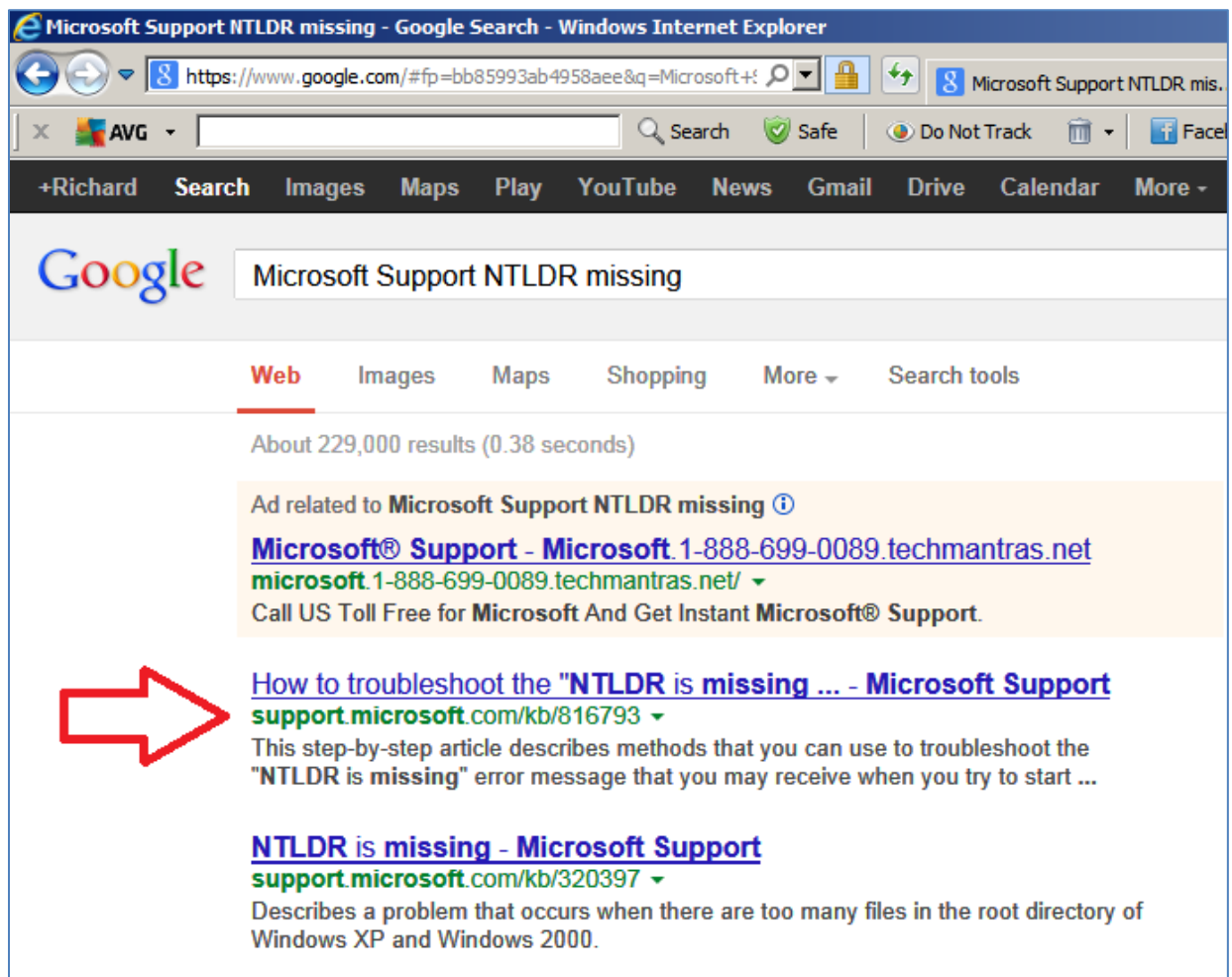
Key Point: Avoid search results from forums as they are full of misleading user opinions that typically have a lot of bad information.

Microsoft will provide you with the best information.

Test objectives that should be search using the Microsoft Support terms will be labeled with "Microsoft Support Search".

Here is a list of several website links your may find very useful.

ASUS Troubleshooting

http://support.asus.com/Repair.aspx?no=605&SLanguage=en

Microsoft website "Networking Different Windows operating systems."

http://windows.microsoft.com/en-us/windows/networking-home-computers-running-different-windows#networking-home-computers-running-different-windows=windows-7

Microsoft website "How do I fix a boot (startup) problem?"

http://windows.microsoft.com/en-us/windows-vista/how-do-i-fix-a-boot-startup-problem

Microsoft website "Make system repairs from the Windows Recovery Environment"

http://windows.microsoft.com/en-us/windows-vista/make-system-repairs-from-the-windows-recovery-environment-from-windows-vista-inside-out

4.0 Troubleshooting

4.2 Given a scenario, troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools.

Unexpected shutdowns Microsoft Support Search

 System lockups

 POST code beeps

 Blank screen on bootup

 BIOS time and settings resets

 Attempts to boot to incorrect device Microsoft Support Search

 Continuous reboots Microsoft Support Search

BSOD Microsoft Support Search

4.3 Given a scenario, troubleshoot hard drives and RAID arrays with appropriate tools.

Read/write failure

Slow performance Microsoft Support Search

Failure to boot Microsoft Support Search

Drive not recognized Microsoft Support Search

OS not found Microsoft Support Search

RAID not found Microsoft Support Search

RAID stops working Microsoft Support Search

BSOD Microsoft Support Search

File recovery software

4.5 Given a scenario, troubleshoot wired and wireless networks with appropriate tools.

No connectivity

 APIPA address Microsoft Support Search

 Limited connectivity

 Local connectivity

 Intermittent connectivity

 IP conflict

 Slow transfer speeds

 Low RF signal

4.6 Given a scenario, troubleshoot operating system problems with appropriate tools.

Common symptoms:

 BSOD Microsoft Support Search

 Failure to boot Microsoft Support Search

 Improper shutdown Microsoft Support Search

 Spontaneous shutdown/restart Microsoft Support Search

 RAID not detected during installation Microsoft Support Search

 Device fails to start Microsoft Support Search

 Missing dll message Microsoft Support Search

 Services fails to start Microsoft Support Search

 Compatibility error Microsoft Support Search

 Slow system performance Microsoft Support Search

 Boots to safe mode Microsoft Support Search

 File fails to open Microsoft Support Search

 Missing NTLDR Microsoft Support Search (possible answer http://support.microsoft.com/kb/320397)

 Missing Boot.ini Microsoft Support Search

 Missing operating system Microsoft Support Search

 Missing Graphical Interface Microsoft Support Search

 Graphical Interface fails to load Microsoft Support Search

 Invalid boot disk Microsoft Support Search

Fixboot

 Recovery console

 Fixmbr

 Sfc

Repair disks

Pre-installation environments

MSCONFIG

DEFRAG

REGSRV32

REGEDIT

Event viewer

Safe mode

Command prompt

Emergency repair disk

Automated system recovery

4.7 Given a scenario, troubleshoot common security issues with appropriate tools and best practices.

Pop-ups

Browser redirection

Security alerts

Slow performance

Internet connectivity issues

PC locks up Microsoft Support Search

Windows updates failures Microsoft Support Search

Renamed system files Microsoft Support Search

File permission changes

Hijacked email

Access denied

Anti-virus software

Anti-malware software

Anti-spyware software

Recovery console Microsoft Support Search

System restore Microsoft Support Search

Pre-installation environments Microsoft Support Search

Event viewer Microsoft Support Search

Schedule scans and updates Microsoft Support Search

Enable system restore and create restore point Microsoft Support Search