

## Basic Troubleshooting Guide *For Small Business Networks*

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### Purpose

This document outlines very high-level and very basic troubleshooting techniques for system outages. Issues with end-user PCs or laptops can be resolved by swapping in spares or having the user work at another desk or location.

#### Preliminary Precautions

- Have the support numbers of your Internet and phone providers handy (i.e 800-TWCABLE). You can typically find this info on your cable bill
- Verify operation and location of your spare PCs if you have them
- Avoid installing new software or updates when you may not have immediate access to technicians (see system restore below for recovering your PC)
- Circuit breakers, power strips, and UPSes are a common issue with equipment which appears to be “dead”. Always check your breakers, and outlets directly before troubleshooting the computer or other devices.

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### No Internet access or sluggish browsing

#### Most likely causes

- ISP is having issues
- modem/router reboot is required
- bad modem or router
- weak wireless access

#### Attempt the following in this order

- Cycle power on cable modem (turn off then back on after 10 seconds)
- Cycle power on internet router (connected to DSL/cable modem)
- Contact your ISP (ATT, Time-Warner: 800-TWCABLE)
- If still out and proper lights are flashing on DSL/cable modem, swap in spare backup router if you have one.
- If working wirelessly, verify you are connected to the proper wireless access point, reboot your wireless access point, or plug into the network

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### No local server access

#### Most likely causes

- Most likely causes – in order: server needs reset OR if no internet, main Ethernet switch needs a reboot or is out.

#### Attempt the following in this order

- Reboot your server as you would a PC (you do not need to logon)
- Check main network switch for lights (all PCs plug into this)

## PC or Server won't power on

### Most likely causes

- Circuit breaker has tripped in your wiring closet – check the outlet
- Power supply in the PC or server has failed (power supply converts AC power to DC).

### Power Supply Sources

- If similar PCs are in the office and are unused, you may have a tech swap the supplies
- Basic PC power supplies are available at Best Buy
- Server power supplies tend to be proprietary – you may need to find a local service company OR contact the manufacturer (see Dell or HP websites)

## Computer acts sluggish or reports a virus

### Most likely causes

- You have surfed to an infected website or opened an unsafe attachment

### Attempt the following in this order

- Run Windows System Restore to roll-back your operating system. In XP, find System Restore under Accessories-System Tools, in Vista or Windows 7, type system restore in the search box. Select a previous date, typically a week before your issue.
- If Windows 7 and you are unable to access System Restore, power off the PC and tap-tap-tap-tap the F8 key on startup until you see a menu for System Recovery Options and select System Restore. You may also boot with a Windows 7 DVD to access System Repair and the menu below.



**IMPORTANT:** After a system restore, use your antivirus scanner to do a FULL scan of your system. Also, if you have Malwarebytes (red icon), run this scanner and do a full scan. You may find this free product by searching google for “cnet malwarebytes download”. When prompted for the Full Trial Version, select DECLINE. The “manual” scan/repair tool is FREE.

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## Contacts and Alternate Resources

Alternate contacts are listed below. Note that 3<sup>rd</sup> party vendors may have their own site visit fees or charges – you may wish to inquire before they visit your site.

**Craig Davis**    Mobile: (704) 641-6372    Home: (704) 398-3172  
Email: craig@enterwisetechnology.com  
Note: unavailable by phone 1pm-11pm Sun-Wed

**NetSouth**        Main: (704) 449-6481  
Email: mark@netsouth.us  
Contact is Mark or Wendy Wertz

**Dat-a-Syst**      Main: (704) 523-3548  
For PC / laptop (possibly server) hardware parts & repair

**Others**            -Best Buy for spare computer parts, routers, switches, accessories  
                          -Geek Squad (operated by Best Buy – usually \$125-\$150 initial)  
                          -Any previous vendor whom you've trusted  
                          -Note that in some cases, eBay can be used to order working power supplies for older servers (search based on the make/model).

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