



Cyber-Security Newsletter

October 2011

STEPHEN F. AUSTIN STATE UNIVERSITY

October is Cyber-Security Awareness Month!

What is Cyber-Security?

Cyber-security involves protecting the information and systems we rely on every day from threats.

There are three core principles of cyber-security:

- **Confidentiality:** Information that is sensitive or confidential must remain so and be shared only with appropriate users.
- **Integrity:** Information must retain its integrity and not be altered from its original state.
- **Availability:** Information and systems must be available to those who need it.

Threats

There are many threats, some more serious than others. Some examples of how your computer and systems could be affected by a cyber security incident — whether because of improper cyber security controls, manmade or natural disasters, or malicious users wreaking havoc—include the following:

- **Denial-of-service:** refers to an attack that successfully prevents or impairs the authorized functionality of networks, systems or applications by exhausting resources.
- **Malware, worms, and Trojan horses:** These spread by email, instant messaging, malicious websites, and infected non-malicious websites.
- **Botnets and zombies:** A *botnet*, short for robot network, is an aggregation of compromised computers that are connected to a central "controller."
- **"Scareware" – fake security software warnings:** This type of scam can be particularly profitable for cyber criminals, as many users believe the pop-up warnings telling them their system is infected and are lured into downloading and paying for the special software to "protect" their system.
- **Social Network Attacks:** Social networks can be major sources of attacks because of the volume of users and the amount of personal information that is posted.



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Annual Maintenance For Computers

Perform Annual Maintenance in Conjunction With the End of Daylight Savings Time Change

In addition to your routine security and maintenance processes for your home computer, you should perform an annual PC “tune up” or maintenance to be sure that your computer is operating efficiently, that appropriate software updates and settings have been applied and to minimize the risk of losing your data. Performing your annual checkup with the end of Daylight Savings Time is a great way to develop an annual schedule. One important step to take before performing maintenance is to back up all your data, in case anything goes wrong during your maintenance.

System and Data Backups - Review, update and test your file backup process.

- If you do not have a backup system, consider purchasing a portable back up hard drive.
- Check your scheduled “backup” scheme to see if it is still applicable. Add folders and files to be backed up as necessary.
- Test the restore function for the backed up files to ensure the restore works properly. Create a folder on your computer and restore your back up to the folder. Afterwards, delete the test folder.

Firewall - Check firewall settings

- Review settings for product configurations. Confirm settings are appropriate for the current level of security needed.
- Review firewall settings to ensure they are configured for automatic updates (if available), known applications are allowed, known inappropriate sites are blocked and known port scans are blocked.

Internet Browser - Check your browser configuration to ensure you have appropriate secure zone settings.

- Review current zone settings (Tools/Internet Options/Security tab) for appropriate levels. The minimum level of security should be the default level, which is set at Medium-High for the Internet zone. Adjustments can be made based on your needs.

Anti-Virus, Anti-Spam, and Anti-Spyware - Check all products for current versions and updates.

- Run complete virus and anti-spyware scans on all drives. This should be done on a weekly basis.

Hard Disk Drive Maintenance - Ensure your hard disk is operating at peak efficiency.

- Scan your Hard Disk for errors. In Windows Explorer select the drive then right click-Properties/Tools/Check Now/. Check “Automatically fix file system errors” and “Scan for and attempt recovery of bad sectors.”
- Defragment your Hard Disk Drive. The data on your hard drive can get separated or fragmented making your computer less efficient. Defragmenting physically reorganizes the data to store the pieces of each file close together for more efficient storage and retrieval.
- Remove old files and emails on your PC. Remember to empty the “Recycle Bin” or “Deleted Items” (Outlook) folders.
- Clean up your disk to remove cookies, temp files, cache, and history files.

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