



Wisconsin Elections Commission

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2022 Election Security Subgrant Appendix C How-to Guides

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2022 Election Security Subgrant

How to Purchase Compliant Hardware and Software

I. **Background.** If a jurisdiction decides to purchase a new computer, this document is designed to help decision makers with *what to buy* and *where to buy it*.

II. **Where to Buy.** Jurisdictions may purchase hardware from any vendor or retail store they choose. This includes vendors with discounts available through state contracts or independent retailers.

III. **What to Buy.** There is an incredible variety of choices available in the computer market. We recommend that any system meet the baseline standards listed below. While more powerful systems are available, the minimum criteria below will allow clerks to perform routine election work securely and with ease. Jurisdictions may spend more than the \$600 subgrant amount on a computer but will have to pay any costs in excess of \$600.

Minimum Recommended Configuration:

1. Form Factor: Computers now come as tablets, laptops, desktops, and all-in-one machines. Any form factor will work; however, clerks may find tablets and some laptops too small for comfortable work.
2. Operating System: Windows 10 or Windows 11
3. Processor or CPU: 1 gigahertz (GHz) or faster processor. Processors from Intel or AMD are most common. Good choices include Pentium, Core i3, Core i5, Athlon or Ryzen.
4. RAM (memory): 4 gigabytes (GB) or more. Note devices with fewer than 8 GB of RAM may be frustrating to use.
5. Hard Disk Space (storage): 128 gigabytes (GB) or greater.
6. Graphics Card: Integrated graphics supporting DirectX 9 or later.
7. Screen Size: 14 inches or larger (recommended).
8. Ports: Consider the number of USB ports for any printers, devices, or scanners you will connect to your device.
9. All-New: Devices must not be refurbished to qualify for the grant.
10. TPM: Windows 11 requires the presence of a Trusted Platform Module version 2.0. Any newly purchased Windows devices should meet this requirement.

How to Obtain IT Support

I. Background

- A. It is important to ensure that all hardware and software are updated regularly to ensure security of IT equipment used for election related functions. For jurisdictions without their own IT staff, engaging managed IT services is an efficient way to stay up to date on technology, have access to advanced IT skills, and address issues related to cost, quality of service and risk. The proactive managed services

model is superior to the reactive “call-when-something-breaks” model. Once you have a problem, the damage is already done.

B. Definitions.

1. **Compliant Device:** a device that meets baseline standards outlined in Appendix C.
2. **Managed Device:** a device that is receiving managed IT service.
3. **Managed IT Service:** ongoing IT support meeting the requirements outlined in section B. below.
4. **Managed Service Provider:** a company offering managed service to customers; usually for a monthly fee.

II. Managed Service Providers. Jurisdictions may choose any managed service provider able to meet the required functions listed below in Section III. The WEC does not endorse specific vendors, but a list of vendors previously used by some jurisdictions is available upon request. Municipalities can confer with other jurisdictions to get recommendations regarding these types of vendors. In addition, the State has many established contracts with hardware and software vendors. Those contracts and additional information are available at vendornet.wi.gov.

III. Selecting a Managed Service Provider.

A. Required Functions

1. **Software Support and Maintenance.** A provider must ensure the jurisdiction maintains current:
 - a. Patches / Firmware (no later than 30 days of release by vendor).
 - b. Antivirus software.
 - c. Anti-spam/anti-spyware software.
 - d. Web filtering software to protect against malicious websites
 - e. Operating Systems.
2. **Communication.** A Managed Service Provider must agree to send and receive timely communications as described below:
 - a. Notifying the WEC. Immediately notify the WEC in the event of any actual or suspected cyber security breaches affecting the clerk’s office or election systems. Contact the Wisconsin Elections Commission Help Desk at elections@wi.gov or secureelections@wi.gov or call 608-261-2028.
 - b. Receiving Cyber Alerts from the EI-ISAC. The Election Infrastructure Information Sharing and Analysis Center (EI-ISAC) provides elections-related threat intelligence, incident response and remediation, threat and vulnerability monitoring, and tools for implementing security best practices. These resources are free.

- i. Clerks and government IT agencies can sign up for Cyber Alerts at this address:
<https://learn.cisecurity.org/ei-isac-registration>
- ii. Private IT companies can sign up for Cyber Alerts at this address:
<https://learn.cisecurity.org/ms-isac-subscription>

B. Recommended Functions

1. Daily Data Backup and Recovery. Establishing a back-up rotation scheme and recovery testing for the jurisdiction.
2. Authentication. The ability to manage digital certificates and set-up multifactor authentication.
3. Network Monitoring and Security. Implementing best practices to prevent and monitor unauthorized access, misuse, modification, or denial of a computer network and network-accessible resources. Retention of login records is also recommended.

How to Check Your Windows Operating System

- I. **Background.** As of **January 10, 2023**, Microsoft no longer provides security updates and support for the Windows 8.1 operating system. If you are still using Windows 8.1 after that time it will be at serious risk. Although Windows 8.1 device will continue to function, security vulnerabilities affecting the operating system will not be remedied, leaving affected computers susceptible to compromise.
- II. **Identifying current operating system.** If you don't know what version of Windows you are using, an easy way to check is to look at your Start button. The default location for the start button is in the lower left-hand corner of the screen. Look at the chart below and compare it to the start button on your computer.

If your Start button looks like this:	Your operating system is:	Your status is:
	Windows 95, 98, or ME	Bad. Your system is unsupported.
	Windows XP	Bad. Your system is unsupported.
	Windows Vista or 7	Bad. Your system is unsupported.
	Windows 8.1	Caution. Your system is or may soon be unsupported. 8.1 - 1/10/23
	Windows 10	OK. Your system is supported until 10/14/2025
	Windows 11	Good. Your system is still supported.

- III. **Next Steps.** If you have a supported system, you don't need to do anything. If your computer is still running Windows 8.1, or any older version of Windows, you must act soon. There are several options available:
- A. **Purchase a New Computer. Recommended.** Purchasing a new computer ensures you will have a capable Windows 11 or Windows 10 system.
 - B. **Upgrade the Old Computer to Windows 10. Recommended with reservations.** Older computers may have difficulty running or installing an updated operating system.
 - C. **Pay for Extended Support. Not Recommended.**
- IV. **Questions.** Contact the Help Desk at 608-261-2028 or e-mail elections@wi.gov.

Upgrading an Operating System

- I. **Background.** Upgrading an Operating System (OS) is a task best left to advanced users or IT professionals. The inexperienced user could at best face a lengthy and frustrating process and at worst end up with an inoperable computer. Consider your skill level carefully before deciding to do it yourself.
- II. **General Information.** Most clerks use a version of Microsoft Windows, so this section addresses only Windows upgrades. Those using any other OS should consult with a subject matter expert.
- A. **Preparing for Upgrade.** Preparing for a new upgrade requires several steps.
 1. **Research your software compatibility.** Some older software may not work on Windows 10 or Windows 11. For commercial software, you may need to pay for a replacement or upgrade. For line of business software, work with the organization that provides the software to ensure compatibility.
 2. **Verify current computer meets minimum requirements for new OS.** If your computer does not meet all minimum requirements, you will not be able to install the new OS. If your computer only meets the minimum requirements, the performance of the new OS will likely not meet expectations.
 3. **Obtain the new OS.**
 4. **Backup your computer.** When you are installing a new operating system, there is a risk you will lose all the files on the computer unless you back them up. Always make sure that any important files are copied to a backup location before starting the installation process.
 - B. **Making the Upgrade.** Making the upgrade is a time-consuming process that takes patience. You will be required to first install a Setup program and then type in a long product key. The set-up program may reformat your hard drive, so don't skip the backup step above.

C. After the Upgrade. Upon completion you will have to enter log in credentials and may be required to re-install software. You can also expect to spend some time downloading the latest updates to the OS you just installed. Finally, you may need to download and install new drivers for various devices.

III. **Conclusions.** Upgrading to a new OS can be a challenging experience even for advanced users. Therefore, the WEC strongly recommends obtaining the services of an IT professional to assist. Any computer technician, including technicians at businesses that sell computers, should be able to complete the upgrade.

Sample Contingency Plan

To complete the contingency plan requirement, the clerk, or authorized designee, will email a copy of the contingency plan to the Elections Help Desk (elections@wi.gov) or submit it with their Subgrant Compliance Form (Appendix A) prior to the end of the grant term.

If the municipality does not currently have a contingency/emergency response plan, or there is a desire to update the current plan, a sample template (Election Day Emergency Response Plan Template) is available under the Contingency Plan & Guide section of the **Elections Security TTX** tile on The Learning Center (TLC) website (<https://electiontraining.wi.gov/>).

A TLC login is required to access the materials. If a TLC login is needed:

- 1) Email a completed and signed copy of the Request to Add Authorized Users to TLC (EL-365) form to the Elections Help Desk (elections@wi.gov). The form is available on the WEC website [here](#). When completing the form, indicate “Not Applicable” under the Requested WisVote Access Level field (unless the user also requires access to WisVote, then identify the appropriate access level).
- 2) Upon receipt of the completed Request to Add Authorized Users in TLC form, the Elections Help Desk will create and issue a login and password for the user.