Dual e-Pollbook Supplemental Guide

Michigan Department of State
Bureau of Elections

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Dual E-Pollbook Supplemental Guide - Table of Contents

Dual e-Pollbook Recommendations

The following is a list of Bureau of Elections (BOE) considerations and recommendations for successful implementation and use of Dual e-Pollbook (EPB) in a precinct.

Note: The BOE does not troubleshoot or provide technical support for networking issues

Networking

- **IT Presence**: Jurisdictions using Dual EPB are required to have IT staff available to assist with networking 2 EPB laptops.
- **Troubleshooting**: BOE has created a short guide for networking two Windows 10 laptops; however, there is no one "right" way to network computers. Because there are so many variables when networking, troubleshooting problems is the responsibility of the clerk's office and their IT support staff. Some networking tips can be found at the back of this document.
- **Clocks**: Make sure that the clocks on the laptops are synced or else transactions will appear to be out of order.

General

- **Precinct Size**: Use a Dual EPB in a precinct of at least 1500 voters.
- **Election Inspectors**: Employ trusted election inspectors who are well versed in Election Day procedures and competent with computers operating the Dual EPB.
- **Time**: Be sure to practice networking and using the Dual EPB well in advance of the election. Also, allow for additional time on the morning of Election Day to set up the laptops. Make sure they are networked so they will work properly when the polls are opened. Networking can be involved and challenging, so make sure that IT support staff is available, especially in the morning when setting up on Election Day.
- **Polling Place Layout**: The flow of the polling place may need to be adjusted, keeping in mind the logistics of two computers being networked and connected with a cord, issuing ballots and the placement of the inspectors, laptops, and ballots as well as the use of additional voting stations.

Supplies

- **Laptops**: The BOE does not provide jurisdictions with additional laptops so acquiring a second laptop to use in a precinct is the responsibility of the jurisdiction.
  - The BOE recommends using identical laptops: same make, model, and operating system in order to simplify the networking of the two laptops; however, it is possible to use two different types of laptops.
- **Cables**: The BOE recommends using Cat 5 cables to network the laptops. The length of the cable will depend upon your needs based on the polling location and room arrangement. Long cables can be wound up and taped down, but short cables cannot be made longer.
- **Magnetic Strip Card Reader & Mouse**: It may be helpful to the election inspectors to have another mouse and magnetic strip card reader to accompany the second laptop. A barcode scanner is an acceptable alternative, but you'll need to test the device with your laptop before relying on it for Election Day.

Device & Networking Requirements

Any items meeting the specifications listed below may be used for EPB or Dual EPB; however, if you need to purchase a new device please refer to our **EPB Hardware Requirements** for improved performance posted in the Elections eLearning Center.

Laptop and 2-In-1 Windows Based Devices
- Minimum of 1.5 GHz, 2.0 GHz is recommended
- 1 GB RAM, 2 GB RAM is recommended
- 10 GB available Hard Drive space
- 15.6 inch widescreen display
- 1366 x 768 graphic resolution
- Physical Keyboard (not virtual)
- Mouse
- 3 USB ports for external devices
- Windows 10, including all service packs, hot fixes, and patches

Laptop models tested by BOE for use with Dual EPB
- HP ProBook 4535s
- Dell Inspiron 15 3000 Series (Inspiron 3542 and 3543 models)
- Dell Latitude E5440

Peripheral Devices
- Unencrypted magnetic strip card reader or barcode scanner
- Encrypted flash drive

Peripheral Devices tested by BOE
- Magtek Dynamag USB card swipe reader, Security Level 2, unencrypted, part #21073062
- Flash drive
    - V-Safe 100 encryption software
    - BitLocker encryption software

Networking Hardware Requirements
- Standard Network, Patch, or Cross-Over Cable - Recommended
    - Types tested by BOE
        - Cat 5
        - Cat 5e
        - Cat 6
- Network Switch or Hub can be used but are not necessary
- If using a Standard Network, Patch, or Cross-Over Cable both devices need RJ45 Ethernet Ports.
  Some slim design devices or tablets don't have an Ethernet Port. If the device does not have an Ethernet Port, you will need to use a USB to Ethernet Adapter – (USB 2.0 to RJ45)

Networking Assistance
- The QVF Help Desk is unable to support networking issues. Rely on local IT resources to assist with questions regarding networking Dual-EPB Laptops. Consult the *Network Troubleshooting* section of this document for general guidance.

Exporting the files from QVF

The electronic pollbook files for the Dual e-Pollbook are exported the same way the files for the traditional, single e-Pollbook are exported from the QVF.
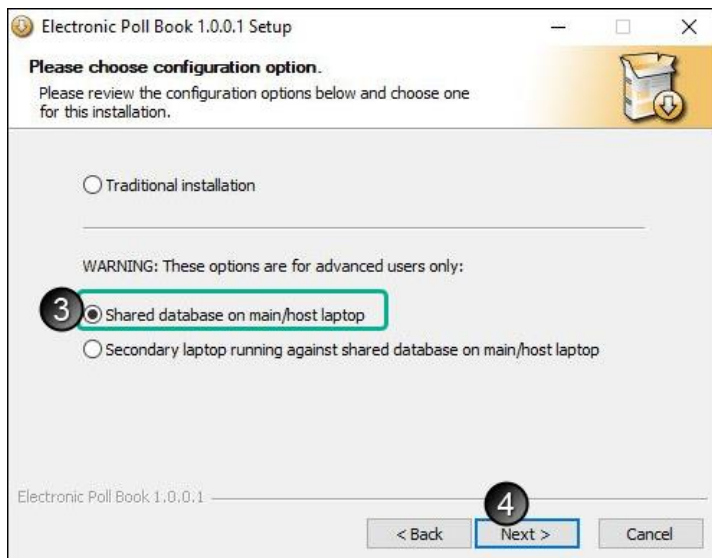
Installing the EPB software

When installing the e-pollbook software, first insert the flash drive into the laptop that will operate as the server. This is the main/host laptop, also referred to as the Parent. Once the EPB has been installed on the main laptop, proceed to install the EPB on the secondary laptop, also referred to as the Child.
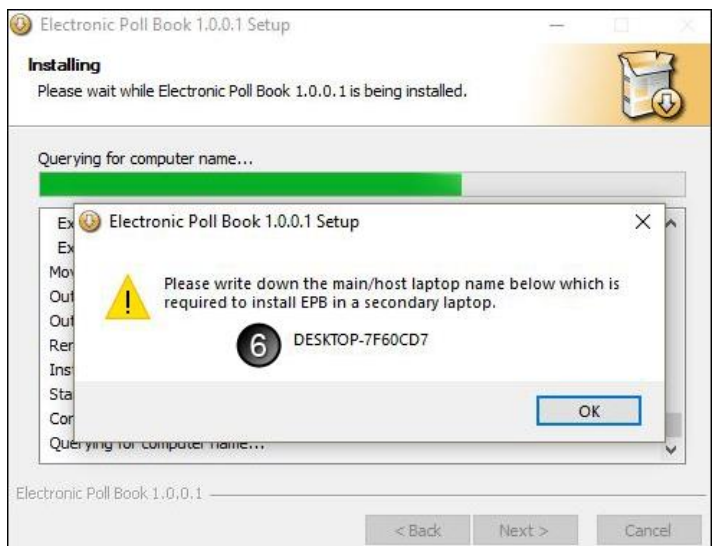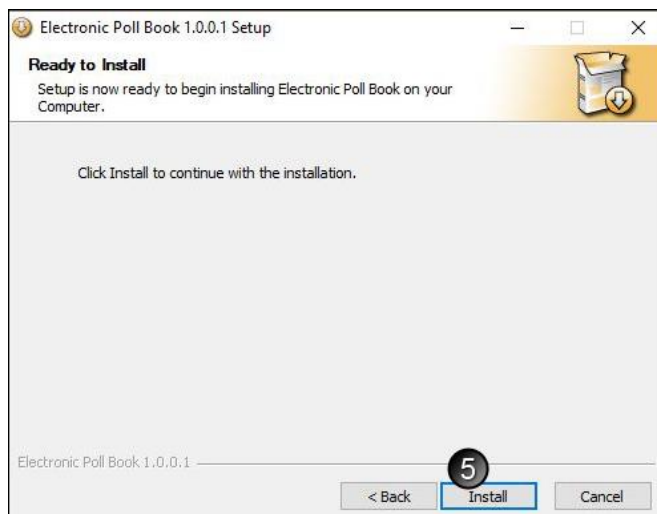
On the Main Laptop

Insert the encrypted flash drive and log in. Once the compressed EPB_Package folder has been uncompressed (unzipped), run the EpbSetup application file and proceed with the following steps:

**Note**: choose YES to allow the app from an unknown publisher to make changes to your device.

1. Click Next
2. Click "I Agree"
3. Choose "Shared database on main/host laptop"
4. Click Next
5. Click Install
6. A window appears providing the name of the main/host laptop. Write this down as it will be needed later when installing the EPB on the secondary laptop. Click OK to close the window and proceed with installation.
7. Click Finish

On the Secondary Laptop

Remove the flash drive from the main laptop and insert it into the secondary laptop. Log in to the flash drive and once the compressed EPB_Package folder has been uncompressed (unzipped), run the EpbSetup application file and proceed with the following steps:

Note: choose YES to allow the app from an unknown publisher to make changes to your device.
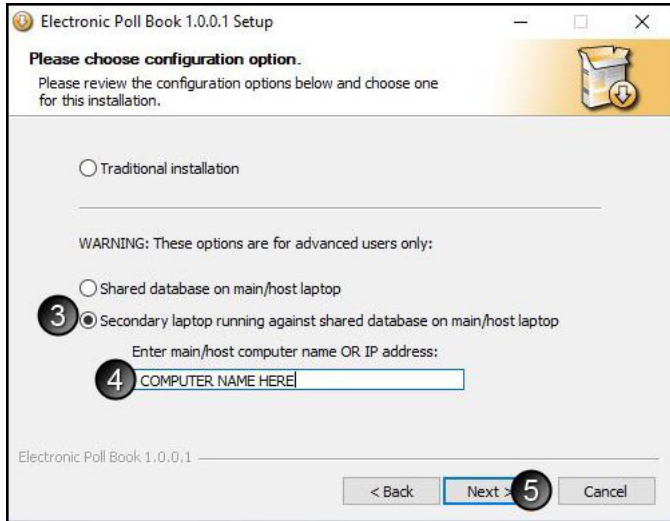
1. Click Next
2. Click I Agree
3. Choose "Secondary laptop running against a shared database on main/host laptop"
4. Enter the main/host computer name or IP address from the previous Step 6
5. Click Next
6. Click Install
7. Click Finish

When complete, insert the flash drive into the main laptop when ready to operate the Dual EPB.

Note: If you get the error message like the one below or a similar permissions message, you have some networking issues which need to be resolved before you can proceed. Refer to the *Network Troubleshooting* section of this document for tips.
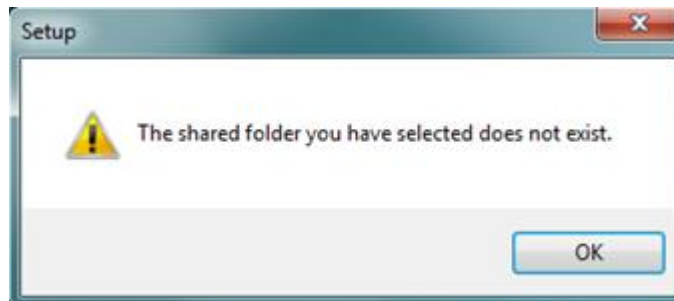
Setting Options

Once the EPB program has been installed on both laptops, log in to the EPB software on the Main Laptop first to continue the setup process. Some options must be set from the Main Laptop and will apply to both EPB laptops; while other options can be set independently.

On the Main Laptop

I. **Inner Precinct:** Log into the EPB Main Computer with the administrator account and select the Inner Precinct. From this screen, you can also choose to allow the recording of absentee ballots on this computer. The Inner Precinct must be selected on the Main laptop before logging into the EPB on the Secondary laptop.

II. **Auto-Advance & Lockout:** The options to Auto-Advance and Lockout by Ballot Style are established either in QVF at the time of export or from the Options on the Main laptop. These options will apply to both laptops and should not be changed to operate differently from one another.
   - **Note**: While the option to auto-advance applies to both laptops, they advance independently of each other. That means the starting ballot number on each computer should be in different number series and the program will auto-advance the ballot number by one each time that computer issues a ballot. If the laptops will be issuing ballots in the same number series, it is most helpful to turn the Auto-Advance off and manually record the ballot numbers being issued.

III. **User Accounts:** User accounts can be created on the main laptop and can be used to log in from either laptop if they were not created in QVF prior to exporting the election files to the flash drive.

On Either Laptop

I. The option to allow the recording of absentee ballots is specific to each laptop. So, if both laptops are to process av ballots, the option has to be turned on from both laptops. If only 1 computer will process av ballots, then only one laptop needs to have the AV processing option turned on.

Operating the Dual EPB

To begin, insert the flash drive into the main laptop, log in to the flash drive then log in to the EPB. Election Inspectors will operate the software as a Dual e-Pollbook much like they would a single e-Pollbook. The two computers will process voters independently of each other, independently auto-advancing the ballot numbers if you wish, and assigning voter numbers in the order the voters are processed.

Screen Refresh

As the two computers process voters, the screens may appear "out of sync". Rest assured that the transactions are being recorded to the shared EPB database. In order for the laptops to display the most recent transactions, the screens' displays must be refreshed. There are three ways the screens can be refreshed.

- **Assign a ballot number**: The screen is refreshed when the election inspector clicks the OK button to assign a ballot number.
- **View menu**: To refresh the screen in between transactions, click the View menu and click Refresh.
- **F5 key**: To refresh the screen in between transactions, inspectors can use the F5 key on the keyboard.

Backup

The encrypted flash drive must be plugged into the Main laptop and all backups performed throughout the day will be saved to the flash drive. When operating a Dual e-Pollbook, the secondary laptop is incapable of saving a backup file. Remember to refresh the screens on both laptops before saving the backup file. There is no need for a second flash drive.

Reports & Voter History

Reports and the history file must be saved to the flash drive from the Main laptop. Remember to refresh the screens on both laptops before saving the reports and voter history.
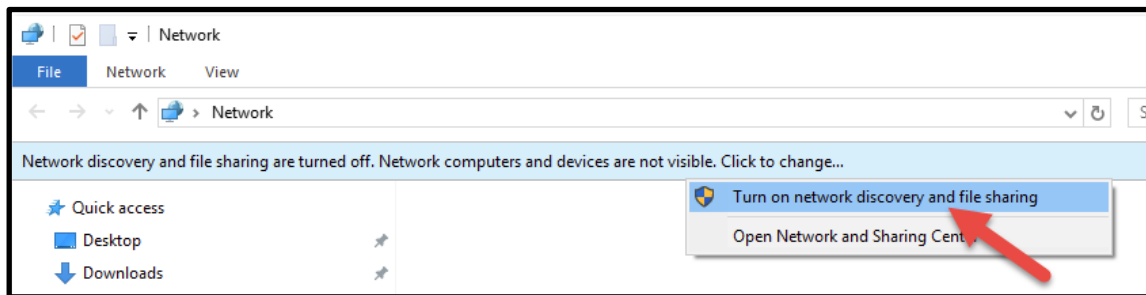
Network Troubleshooting

Technical support for networking 2 devices as a Dual e-Pollbook is the responsibility of the clerk's office and their local IT service provider. The level of assistance the QVF Help Desk can provide for networking issues is limited, but here are some helpful points to remember when attempting to network 2 laptops/Windows devices for use as a Dual e-Pollbook.

Preparation Guide

- Make sure the 2 laptops have different computer names

- Disable the Wireless Adaptor and enable the Network Adaptor
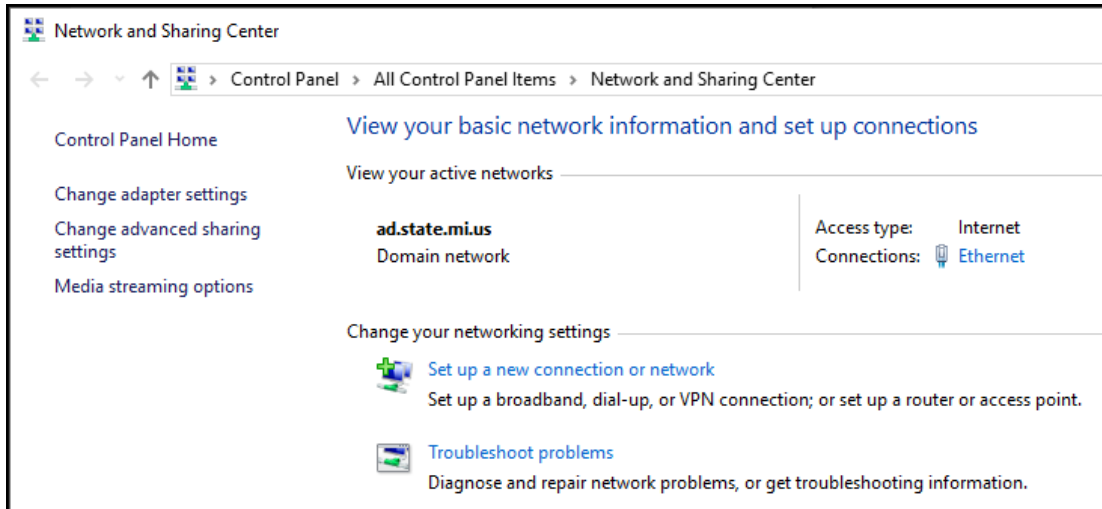
- Turn on network discovery and file sharing

- The network should be private

- Navigate to Advanced Sharing Settings to troubleshoot additional network or permissions issues:
  - Control Panel\All Control Panel Items\Network and Sharing Center\Advanced sharing settings