Precinct Central ePollbook
Version 4.0
Use Procedures

State of California

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<th>Date Revised</th>
<th>Author</th>
</tr>
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<td>1.0</td>
<td>March 1, 2018</td>
<td>M. Grimaldo</td>
</tr>
<tr>
<td>1.1</td>
<td>April 1, 2018</td>
<td>A. Ellison</td>
</tr>
<tr>
<td>1.2</td>
<td>April 13, 2018</td>
<td>A. Ellison</td>
</tr>
<tr>
<td>1.3</td>
<td>April 26, 2018</td>
<td>M. Grimaldo</td>
</tr>
<tr>
<td>1.4</td>
<td>April 30, 2018</td>
<td>M. Grimaldo</td>
</tr>
<tr>
<td>1.5</td>
<td>May 10, 2018</td>
<td>A. Ellison</td>
</tr>
</tbody>
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1. Introduction

1.1 System description and components

System Description: Precinct Central Overview

Precinct Central is a modern platform that brings together the latest technologies and best-of-breed functionalities in a cost-effective package. Great care and design work has been completed in selecting and building the system components, including the software, the hardware, and the Tenex original “flip and share” stand. Precinct Central started with a basic concept of an electronic poll book system that replaces the paper check-in process and allows checking in voters in an electronic format. In its current state, it has evolved into a complete monitoring platform allowing election officials to track and react to issues in the field before they are magnified into larger problems.

Figure 1: Precinct Central ePollbook Suite

The Precinct Central Suite is comprised of three core modules that form the backbone of the system; these are, Precinct Central Touchpad, Precinct Central Data Studio, and Precinct Central Console. Paired with other integrated modules created by Tenex, such as Election Response, Election Ready, and Live Results, Precinct Central is the most comprehensive and user friendly electronic pollbook and election management platform available in the market.
Precinct Central Touchpad is a highly customizable electronic poll book solution that runs on the award-winning iPad hardware platform. This hardware platform, along with the intuitive software from Tenex, offers familiarity and ease of use for poll workers. There are no additional peripherals required for reading barcodes and gathering voter signatures. Housed in the flip-n-share stand, the platform is lightweight and easy to setup, operate, transport, and store.

Precinct Central Console is a real-time comprehensive monitoring platform that allows elections staff to monitor devices, users, communications, and performance metrics, all on an easy to use, dedicated computing environment. All Customers receive a private, secure website for monitoring election activity in real-time from the office. Tenex understands that management staff on Election Day can be stretched thin and will need access to important election information on-the-go from wherever they are. A mobile website of the Precinct Central Console provides direct access to critical election information to officials who can quickly respond to issues in the field. The Precinct Central Console is also the election office portal for all pre-election setup activity and post-election data reconciliation, auditing, and export.
The **Precinct Central Data Studio** forms the communication backbone for the product suite. This module provides all interfaces for integrating with the voter registration system and for communicating information between all Touchpads deployed in the election. Data Studio employs IT industry standard data management practices and mature off-the-shelf database technologies to manage, protect, and maintain integrity of election data. The consistent application of this methodology is used at every module of the platform to prevent data inconsistencies and losses while identifying and monitoring exception cases quickly and easily at the elections office.

1.2 Terms and Definitions

- **Precinct Central** – Overall term for the ePollbook product suite composed of the Touchpad, Console, and Data Studio
- **Touchpad** – iPad based ePollbook unit with Tenex Precinct Central software
- **Console** – Web-based backend management and monitoring system for Precinct Central Touchpads
- **Flip and Share** – Proprietary stand that holds, stores, and protects the iPad
- **Level-0 Data Package** – Initial set of data loaded from the voter registration system
- **Data Studio** – Transfers raw level-0 data package to the Precinct Central cloud server and converts data into Precinct Central data format
- **Journal Files** – Incremental data updates received from the voter registration system
- **Data Package** – Initial data loaded on individual Precinct Central Touchpads created from Level-0 files
- **Delta Files** – Files used for communicating incremental journal file updates and voter check-ins to each individual Touchpad
2. Hardware Components

The Tenex solution has been put together with specific and meaningful hardware pieces that create a cohesive, secure, and easy-to-use ePollbook solution. The underlying hardware used for running the ePollbook system is a very important factor to consider when selecting the best solution. Tenex has selected a modern, tablet-based platform for Precinct Central - the award-winning iPad tablet hardware from Apple. The Apple iPad is one of the most secure tablets available and boasts security features such as an encrypted file system, FIPS certification, and no external device interfaces that could introduce malware and unwanted behavior.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Model</th>
<th>Version Number</th>
<th>Operating System</th>
<th>Size/Weight</th>
<th>Built-In Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPad</td>
<td>iPad</td>
<td>N/A</td>
<td>iOS 10</td>
<td>Height: 9.4 inches</td>
<td>8-megapixel camera autofocus camera for barcode scanning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>iOS 11</td>
<td>Width: 6.6 inches</td>
<td>Multi-Touch display with IPS technology for seamless on-screen signatures and on-screen keyboard usage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>System will remain compatible with new versions of iOS as they become available</td>
<td>Weight: 1.03 pounds</td>
<td>COTS</td>
</tr>
<tr>
<td>Flip &amp; Share Stand</td>
<td>Flip &amp; Share</td>
<td>2.0</td>
<td>N/A</td>
<td>Height: 10.75 inches</td>
<td>360-degree protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Width: 8 inches</td>
<td>Double hinged for ergonomic use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Weight: 1.25 pounds</td>
<td>Compact and all-in-one</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proprietary</td>
</tr>
<tr>
<td>Transport &amp; Carrying Case</td>
<td>Gemstar 1318-6</td>
<td>N/A</td>
<td>N/A</td>
<td>Height: 13.75 inches</td>
<td>Fits all components of two complete units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Width: 10 inches</td>
<td>Durable and rugged</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Weight: 2 pounds</td>
<td>COTS</td>
</tr>
<tr>
<td>10-foot Charging Cable</td>
<td>Belkin</td>
<td>N/A</td>
<td>N/A</td>
<td>10 feet long, 4.3 ounces</td>
<td>Extended length allows for charging in various sized polling locations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.3 ounces</td>
<td>COTS</td>
</tr>
<tr>
<td>Epson Printer</td>
<td>TM-m30</td>
<td>N/A</td>
<td>N/A</td>
<td>Dimensions: 2.68 x 5.39 x 0.28 in</td>
<td>Compact footprint</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Weight: 4.48 ounces</td>
<td>Lightweight and easy to use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>COTS</td>
</tr>
</tbody>
</table>
3. Installation and Configuration of System

3.1 Hardware requirements and specifications

**Recommended Equipment**

Tenex recommends the following hardware configuration:

- iPad 9.7-inch tablet
- Epson TM-m30 Bluetooth Printer
- Flip & Share Stand
- Transport and Carrying Case
- 2 Stylis
- 10 Foot Charging Cable

*Items marked with ★ are required*

★ iPad 9.7-inch tablet

The iPad is the ideal tablet for an e-pollbook implementation; it is lightweight and compact and requires no additional peripherals for completing voter check-in functions. The Apple iPad is considered one of the most secure platforms available today and with a trusted core operating system, encryption at the disk, and a powerful sandbox process model helps ensure that no unauthorized access occurs.

★ Flip & Share Stand

The iPad is paired with the Tenex proprietary “flip and share” case and stand. This unique solution offers one simple component that allows storing, charging, transporting, and using the iPad in a working position all in one case and stand combo. This ergonomic stand protects the iPad with 360-degree coverage and provides a lightweight and easy to set-up unit for the precinct officers on Election Day.

★ Transport and Carrying Case

Tenex has put as much thought and development into our storage case as we have done with our software. Our durable, lightweight blow-mold case is not only practical and stylish, but very compact requiring little storage space when not in use. The case dimensions measure 13.75 x 10 x 4.75 inches and, weighs approximately 8lbs when all required equipment is enclosed. This case also allows for the storage of equipment when not in use.

Bluetooth Printer

The Epson Bluetooth receipt printer chosen by Tenex as the optimal printer for the Precinct Central solution allows reports, affidavits, polling location directions and more to be printed on-demand from the polling location by a poll worker. This printer is easy to use, set-up, and is very reliable with a 250-foot receipt paper roll (this means no paper changes on Election Day!)

Battery Pack (optional)

The battery backup option provides an additional 10 hours of battery life to the Touchpad unit in the event of a power outage. Over the years, Tenex has not had an incident where a polling location lost power long enough for a Touchpad ePollbook to reach even 50% battery life or less. Batteries require conditioning and storage.
3.2 Hardware and network set-up and configuration

Wireless Network at the Office/Storage Site
The Precinct Central Touchpad solution is a simple solution for county offices to manage and deploy. The main network requirement for the solution is a dedicated, high-speed wireless network available at the office or Touchpad storage site. For a typical installation, the wireless network should allow 50/50 mbps bandwidth and should require a WPA2 password and can have a hidden SSID if required by the county. This network must have the following ports accessible:

<table>
<thead>
<tr>
<th>Port</th>
<th>Incoming or Outgoing</th>
<th>TCP/UDP</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2195, 2196</td>
<td>Outgoing</td>
<td>TCP</td>
<td>Used by Profile Manager to send push notifications</td>
</tr>
<tr>
<td>5223</td>
<td>Outgoing</td>
<td>TCP</td>
<td>Used to maintain a persistent connection to APNs and receive push notifications</td>
</tr>
<tr>
<td>80/443</td>
<td>Incoming</td>
<td>TCP</td>
<td>Provides access to the web interface for Profile Manager admin</td>
</tr>
<tr>
<td>1640</td>
<td>Incoming</td>
<td>TCP</td>
<td>Enrollment access to the Certificate Authority</td>
</tr>
<tr>
<td>9001</td>
<td>Outgoing</td>
<td>TCP</td>
<td>Used for registration of the Touchpad devices</td>
</tr>
<tr>
<td>990</td>
<td>Incoming</td>
<td>TCP</td>
<td>Used to download the local database from the Precinct Central Server</td>
</tr>
</tbody>
</table>

Wireless Access Points at the Office/Storage Site
Wireless access points are needed to broadcast the wireless network to the Touchpads. One access point should be available for every 250 Touchpad devices. These access points should allow at least 250 connections at one time to ensure that all Touchpads can be connected at once if needed. The county’s Touchpad storage solution should ensure that Touchpads are within 25 feet of the closest access point.

Download Application Server/Cache Box (Optional)
The download application server/cache box is a server that holds a local version of the database that will be downloaded to the Touchpads for election use. This should be used in counties with more than 1,500,000 registered voters or a 500MB database size.

The download application server/cache box is hardwired into an internet connection. This internet connection should be an internet connection that the Touchpads also connect to. Since the server has an internet connection, the county will download a local version of the database. The database will automatically download as a zip file (voterdb.zip to be specific). This file should be put in the DB directory of the server. When downloading the database to the Touchpads (either through over the air downloads or manually), the address of the server and the SFTP credentials will be used.

3.3 Software installation and configuration

Precinct Central Touchpad
The Precinct Central ePollbook application (EPB) will be installed on all delivered Touchpad units. The units will come preconfigured with the most up-to-date, certified version per the California Secretary of State. Because each Touchpad will be enrolled in the Mobile Device Management (MDM) solution, as new software versions are available, Tenex will be able to remotely push these application updates down to the ePollbooks as needed and as they are approved by the
California Secretary of State. No updates will be pushed down to the ePollbooks until there is full approval and all parties are notified. The county will not be required to install or configure any software on the Touchpad ePollbook units.

Each Touchpad will be deployed in Single App mode (set-up by Tenex via the MDM) which ensures the EPB application is the only accessible option for users on Election Day. Tenex can be contacted to manage the Single App mode on devices which can be put into and taken out of Single App mode as needed.

Precinct Central Console
The Precinct Central Console is a web-based, .net application that is used in any modern web browser (Google Chrome is preferred). Updates to the Console are done remotely by Tenex and are scheduled with the elections offices as to not update during work hours. The county will not be required to install or configure any software for using the Precinct Central Console.

Precinct Central Data Studio
The Precinct Central Data Studio is a program that is used to securely transfer level-0 data files to the Precinct Central server. Subsequently, the Data Studio program is used to convert those files into a SQLite database. The PC Data Studio installation package and instructions are provided by Tenex and is installed on a PC by a county IT administrator.

3.4 Data Life Cycle for Touchpads

The Precinct Central Data Studio is the data management engine of Precinct Central. This component is capable of managing large data sets and aggregating and loading data from different systems. The Data Studio is architected to be extremely flexible and facilitate data load in large and complex environments. The process for loading voter record files onto the electronic poll books (ePB) can be broken down into a few steps: data file processing, data proofing, data package creation, and data package download, incremental data updates. Counties will export data from their EMS system for uploading into Precinct Central for creation of a ePollbook database. Data load scripts are initially setup by Tenex using the Precinct Central Data Studio. These are setup based on the file formats and data requirements of individual customer organizations. Once these initial scripts are completed, all data loading functions are directly available on the Precinct Central Console and the County can load data and create data packages as needed.

Terminology

Level-0 Data Files: The initial set of data files for loading voter data, street data, and location data

Level-0 Data Package: Package created for loading data to the iPads.

Delta Files: Files used to automatically update the iPads after the initial data load.

Journal Files: Incremental data updates received from the voter registration system

The process for loading voter record files onto the electronic poll books (ePB) can be broken down into a few steps: data file processing, data proofing, data package creation, and data package download, incremental data updates.
Step 1: Data File Processing
Data file processing involves making “Level-0” data files available on the Precinct Central Server and processing the files through the Data Studio scripting engine. The data files are created from the source EMS and can be updated to Precinct Central using the file upload utility available on the Precinct Central Console or using a secure FTP process. The Level-0 data file processing is only required to be done once per election. After this stage, the data is available to be proofed with various scorecards and reports.

**STEP 1: DATA FILE PROCESSING**

- Begin at the Precinct Central home screen, click on the ‘ADMIN’ tab and in the sub menu click on ‘Data Management’.

- The page will automatically load to the ‘Load Level 0 Files’ ribbon on the left-hand side.

- To load data, click on all data files that have the word ‘Available’ highlighted in green next to the file.
- Click on the checkbox to the left of the data file.
- Once all data files are selected, click on the green ‘Start’ button at the top of the screen to load the files.
Step 2: Data Proofing
Data proofing is an important step in the process to assure that all data is accurate and current. Precinct Central has one of the most advanced, detailed, and comprehensive data proofing reports and scorecard views. These tools will assist the administrators in ensuring the accuracy of the data by presenting several data summary reports as well as highlighting any potential erroneous data. The data validation scripts can be customized to track data issues that may be endemic to the jurisdiction. For example, some data may be prone to having malformed or incorrect date elements; the validation scripts can be customized to help identify this data issue.

**STEP 2: DATA PROOFING**

- Begin at the Precinct Central home screen, click on the ‘ADMIN’ tab and in the sub menu click on ‘Data Management’.

- Click on the left-hand ribbon titled ‘Verify Data’.
- This screen will show different statistics on the data that has been uploaded as well as any possible errors in the data.

Step 3: Data Package Creation
Once the data has been proofed and validated for accuracy and corrected, a data package can be created. This step involves transforming the data on the server into a compact format that is readable on the Touchpad.
Figure 4: Data Life Cycle - Level-0 Data Load Steps

STEP 3: DATA PACKAGE CREATION

Click on the ‘Admin’ tab and in the drop down menu select ‘Data Management’.

Click on the tab labelled ‘Manage Packages’ on the left side of the screen.
Step 4: Data Package Download
The data package is now ready to be distributed to the individual Touchpads. This process can be initiated in two different ways:

- **Manually from each Touchpad** — An administrator/warehouse personnel can bring up each Touchpad and manually start the data download.

**STEP 4: DATA PACKAGE DOWNLOAD—MANUALLY FROM EACH TOUCHPAD**

- Begin on the home screen and click on the “START” button.
Click on the green "Download Database" button to begin.

Confirm all your options are correct such as where the download is coming from and touch the red button if you are downloading for Training or the green button for Election Day.

Confirm that you want the download to begin.
The database download is now in progress.

The package is being unzipped and prepared.

The database is successfully downloaded. Touch the green “START” button to begin.
**Over-the-Air Push mechanism** – Using an advanced data-push mechanism directly incorporated into Precinct Central, an administrator can select/schedule data pushes directly from the Precinct Central Console. Touchpads on the network will automatically detect the message and start the process of downloading the data package.

**STEP 4: DATA PACKAGE DOWNLOAD—OVER-THE-AIR PUSH MECHANISM**

- Begin on the home screen and click on "MDM" and select "Database Management" from the drop-down menu.

- Step 1: Select all the iPads that are to be updated by clicking on the checkboxes to the right of the device.
- Step 2: Click on the dropdown menu and select 'Download'.
- Step 3: Click on the dropdown menu and select where the download will be coming from (in this case, cloud).
- Step 4: Enter how many iPads you want downloading at once. If one at a time, enter “1”. If all at once, enter “0”.
- Step 5: In the first drop down menu select if the database is for an Election or training purposes. In the second drop down menu select if the database is zipped or unzipped.
- Click on the green “Start database download” button.

- You will see a green message stating, “Database download operation has been queued”.

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Step 5: Incremental Data Updates

Updated voter registration information is first loaded in Precinct Central from the voter registration system using an incremental file based or direct access API interface. The data files received from the voter registration system are termed “journal files”. Journal files can be setup to run automatically or can be manually loaded on demand by an administrator.

Once the journal files are processed, updates of the voter data to Touchpads can be in several ways. The most seamless method is to use real-time updates through the internet. Secure Internet updates are accomplished by the Precinct Central platform in a completely secure, transparent, and non-intrusive way so the poll workers do not need to be aware of changes in the background while they are performing check-ins.

The update process depends on a WiFi connection and the Touchpads individually monitor the changes (called delta files) and download them in chronological order. While this process is transparent at the precinct, it is visible to the office. Touchpads can be monitored to make sure all are receiving data updates and any that are behind for any are quickly visible.

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**STEP 5: INCREMENTAL DATA UPDATES EXAMPLE**

- When a check-in is completed on a Precinct Central Touchpad, the check-in transaction is first sent to the Precinct Central Console database.

- Precinct Central Data Studio Services running on the server detects the new check-in automatically and sends the check-in information to the partner program running on the client server.

- The partner program (PC Services) runs a SQL statement to update the voter’s check-in information into the EMS database.
4 Logic and Accuracy Testing Procedures

Once units are delivered, county personnel are expected to acceptance test all units for hardware performance and functionalities as well as the installation of the correct and certified software version. Tenex has included an acceptance testing checklist as an attachment.

Below is also a step-by-step guide to logic and accuracy test the EPB’s. The procedures and checklists below are to ensure the EPB is in proper working order and has all correct information.

Accuracy Test Procedures

Below are procedures that are to be followed so ensure the EPB’s are functioning properly and giving correct feedback.

- Press the “START” button and enter your first initial and full last name. Press CONTINUE.
- Enter password “vote123” and press UNLOCK DEVICE.
- Verify the printer is found and press TEST PRINTER; once test slip prints, press CONTINUE.
- Verify a Zero Report is printed and all fields totals are “0”. Press CONTINUE.
- Press the green “Voter ID Scan” button and scan one of the valid voter sample IDs provided.
- Verify the EPB produces the correct voter’s record and displays “Voter is eligible to vote.” in the green box. Press GET VOTER SIGNATURE. The screen will flip upside down. Tilt EPB down so the screen is right-side up and sign on the line. Press DONE. The screen should be upside down again. Tilt screen back towards you so it is right-side up again and press “issue ballot”.
- Verify an ‘Authority to Vote’ slip prints with the correct precinct name. Press CONTINUE.
- Verify the voter’s ballot style and touch COMPLETE CHECK-IN.
- Ensure the EPB states “voter successfully checked in.” Press PROCESS NEXT VOTER.
- Continue checking voters in using the steps above. Again, at least one voter from precinct at the polling location must be checked in on first EPB for the polling location.
Logic Test Procedures

The purpose of L&A testing is to verify that all the equipment is working properly together as configured while also verifying that the Touchpad is properly assigned and functioning for the assigned location. Tenex will work with your county to develop L&A testing procedures that are appropriate for your organization. There may already be some state requirements for Logic & Accuracy testing of electronic poll books that will need to be considered and properly incorporated into the plan.

The L&A test plan should be used to confirm setup before every election. The steps and plans prepared for your county for the L&A test can also be used as a final acceptance test for the implementation. This provides a method to complete the final acceptance for the implementation while also validating the actual L&A test procedures.

An L&A can cover various aspects of the system, but is usually designed to rest and ensure that each location’s hardware configuration is working properly. Some aspects that will be covered in the L&A test include but are not limited to:

- The MiFi is properly named (correct SSID based on the location)
- The Touchpads automatically connect to their location’s MiFi
- The printers automatically connect to their associated Touchpads
- The touchscreen is responsive to touch

SETUP OF HARDWARE

Remove all contents from the transport case and place on table and verify correct EPBs, printers, and MiFi are printed on the device labels.

Use the colored stickers as a guide to plug in the devices to the white surge protector and power them on. (Note: This MUST be completed in the order below)

- Step 1: Power on and plug in the MiFi Hotspot.
- Step 2: Power on and plug in the Printers.
- Step 3: Power on and plug in the Electronic Pollbooks.

Open the printer paper access panel by pulling up on the gray lever. Remove the paper roll and place in the bin labeled “USED PAPER ROLLS”.

Retrieve a new printer roll from the box and insert into the printer, then close the printer access panel. DO NOT USE THE ONES IN THE TRANSPORT CASE!

Verify the EPB shows the charging indicator in the top right corner and that the MiFi shows a charging indicator in the top right corner as well.

CONFIGURATION VERIFICATION

Press the iPad home button to unlock the device and press the EPB application icon.

Press the settings icon in the top left corner and verify the following:

- Touchpad Health
  - Sideways: Plugged and properly charging
- Touchpad Info
  - Asset ID: 1
  - Device ID: CACert1
  - Usage Location: 215120
  - Election Date / Name: November 6, 2018 General
  - Type: ElectionDay
  - Software Version: 4.0.0
  - Database ID/Name: CACertProd
Press the settings icon in the top left corner to exit the settings menu.
Verify the following items in the lower portion of the screen
- Device ID: CACert1
- Polling Location Name: COLLEGE PRESBY CH RECEPTION RM
- MiFi Name: TenexMiFi
- Touchpads Connected: 1
- Printer: PR 001

LOGOUT/SYNC/PRINT REPORTS
Press the menu icon in the top right corner and press LOGOUT then a yellow CLOSE THE ELECTION button. Press YES to confirm this.
- Enter password “vote123” then press LOCK DEVICE and the screen should turn orange and state “synchronizing device”.
Press the PRINT button, then YES to confirm; verify a Check-in Totals report prints.
Verify the “Total for location” section reports the same number of check-ins on the printouts from ALL EPBs assigned to the polling location.

POWER DOWN/ PACKING UP
- Verify the battery percentage in the top right corner. If it is less than 80% the EPB must remain plugged in to charge.
- Double click the iPad home button and swipe the EPB application screen up to kill the app.
- Hold the power button on the top of the EPB until a “slide to power off” indicator appears; slide the power button/icon to the right and the EPB will turn off.
- Power off the MiFi unit by holding down the power button.
- Turn off printer by pressing the power button.
- Unplug all devices and verify all items are present using the diagram on the inside of the transport case.
- Place a colored dot on the side of the transport case to indicate it is complete.

4.1 Retention of Test Materials
Test materials should be retained for the applicable period as per the California state requirements. Tenex recommends that test materials are retained until the end of election canvassing in case a public record request is received.

4.2 Hardware Maintenance and Preparation for Use
Tenex has a unique combination of commercial off the shelf hardware used, and maintenance requirements are minimal for all hardware components. The devices do not need any specific hardware maintenance beyond an electrical charge that must be completed for each election cycle. These normal maintenance procedures do not require onsite maintenance services, but Tenex will provide documentation on the charging procedures and other maintenance processes. If any hardware component needs to be replaced, Tenex will help facilitate the exchange and replacement of such hardware component.
To prepare for use, devices should be charged at more than 80% charge.
5 Polling Place Procedures

5.1 Polling Place Set-Up and Usage

Tenex’s Touchpad units are delivered to the polling locations in a protective transport and carry case. There are two carrying case versions:

- One version (as shown below) contains two complete ePollbooks units and peripherals
- One version contains one complete ePollbook unit and peripherals

The Touchpad polling place set-up procedures would be the same for a vote center or a polling place configuration. The carrying case contains all necessary equipment to setup and use the ePollbooks at the polling location. The tables below walk through setting up the equipment at the polling location.

<table>
<thead>
<tr>
<th>CARRYING CASE AND REMOVING CONTENTS FROM CARRYING CASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>✜ The carrying case containing two Touchpad units should be set on the check-in table as pictured.</td>
</tr>
<tr>
<td>✜ Open the case by unlatching the two locks at the top of the case.</td>
</tr>
<tr>
<td>✜ When opened, you will see two printers, two Touchpads, a MiFi unit, three styli, additional paper rolls (under Touchpads), charging cords (under Touchpads), and a cleaning cloth (under Touchpads).</td>
</tr>
</tbody>
</table>
Remove both Touchpads from case and set them on the table. Remove printers and set them on the table as well. Ensure that the correct Touchpad is next to the correct printer by checking the labels on the devices.

Remove additional items (except spare paper) from the carrying case.

**SETUP OF TOUCHPAD UNITS**

Now that all materials have been removed from the case, we can set-up the hardware. Remove and plug-in the MiFi hotspot. (Hotspot model will vary by county).

Ensure all jurisdictional and/or State wireless network requirements are followed when WiFi and/or MiFi connections are utilized.

Locate your Touchpad ePollbooks. Open the Touchpads by inserting your finger under the blue “Lift Here” sticker. Flip the case into position by folding the bottom of the stand underneath the unit and setting it on the table (see picture below for proper setup).

Once the Touchpad has been properly set-up, locate the orange tabbed power port on the right-hand side of the unit.
Locate your 10-foot charging cord. Insert the orange stickered end of the white charger into the charging port of the Touchpad by using the stickered guides.

Plug the other end (teal stickered) of the 10-foot charging cord into the USB charging brick (matching teal sticker).

Plug the brick into a power outlet. The Touchpad will now turn on automatically.

Locate both cord pieces for the printer. Insert the printer cord into the printer block (use purple colored guides) and plug the cord into the surge protector. Press the power button on the printer to turn it on. You should see a blue light appear on the front display of the printer.

All hardware is now set up and ready to start.
### Using the Touchpad to Process a Voter

- Once the Touchpad is turned on, open the EPB app by touching the red white and blue EPB app icon.

- Once logged in, to scan a voter ID, touch the green “VOTER ID SCAN” button.

- Scan the barcode of the voter sample ballot or ID card by using the sticker guides.
  - There is a sticker on the back of the Touchpad to guide you on where to place the scannable ID.

- App will verify voter eligibility. Touch the green “GET VOTER SIGNATURE” button to allow the voter to sign.

- The signature screen will appear. Tilt the screen towards the voter – do not rotate the stand. The voter will sign using the stylus. Once complete, flip the screen back towards the poll worker.
5.2 Closing the Polling Place

Once voting hours are over and the election is closed, please follow the steps below to properly close the Touchpad and secure equipment.

<table>
<thead>
<tr>
<th>CLOSING THE TOUCHPAD UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ Touch the settings menu button at the top right hand corner of your screen.</td>
</tr>
<tr>
<td>➤ At the very bottom, touch ‘Logout’.</td>
</tr>
<tr>
<td>➤ A dialog box will appear - touch the yellow ‘Close the Election’ button.</td>
</tr>
<tr>
<td>➤ A warning page will appear to confirm we want to continue. Touch ‘Yes’.</td>
</tr>
</tbody>
</table>
The Touchpad will synchronize all its data.

Once complete, this screen will appear. The device is now locked and the application can be shutdown. Click on the gear shift icon to shut down.

Scroll to the bottom of the dropdown menu and touch on the red ‘SHUTDOWN’ button.

Touch “YES” to shut down the EPB.

Turn off the Touchpad by holding down the power button.
<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unplug cords and flip the Touchpad stand closed.</td>
</tr>
<tr>
<td>2</td>
<td>Turn off the MiFi equipment by holding the power button until the screen goes dark.</td>
</tr>
<tr>
<td>3</td>
<td>Turn off the printer by pressing the power button. Unplug the power cord from the printer.</td>
</tr>
<tr>
<td>4</td>
<td>Place all equipment back into the case.</td>
</tr>
<tr>
<td>5</td>
<td>Close lid and secure the latches on the case.</td>
</tr>
</tbody>
</table>
5. Programming and configuration of software, including audit logs to be generated and retained

The Precinct Central ePollbook application (EPB) will be installed on all delivered Touchpad units. The units will come preconfigured with the most up-to-date, certified version per the California Secretary of State. Because each Touchpad will be enrolled in the Mobile Device Management (MDM) solution, as new software versions are available, Tenex will be able to remotely push these application updates down to the ePollbooks as needed and as they are approved by the California Secretary of State. The county will not be required to install or configure any software on the Touchpad ePollbook units. No configuration is required of the software on the unit. Counties do, however, have the option to customize features/settings of the ePollbook application through their backend Precinct Central Console. See “Admin Guide” for step by step instructions on configuring settings.

Precinct Central keeps a full audit log of operations performed on the system. Operations that are saved include, but are not limited to:

- Poll worker log-in name and time of poll worker log-in and log-out
- When a database is downloaded, or removed
- Any voter that is searched (even if that voter is not checked-in)
- Device lock and unlock time and user information
- Voter transactions including regular check-ins, provisional ballots, spoiled ballots,
  - Address changes, name changes, transfers
  - Poll worker that completed each transaction
  - Time each transaction began and ended
  - All voter record information
- Total transaction times for each transaction

Each operation saved on the system is accompanied by the user that performed the operation, the Asset ID of the device the operation occurred on, and the voting location the operation occurred in. The Touchpad keeps a full log of these operations locally on the Touchpad, which can be viewed and filtered. This log can be sent to the Precinct Central Console for easy viewing and archiving.

Precinct Central creates several log files.

- Device Logs: This log file keeps information on the Touchpad device. Transactions that are logged here include the downloading of a database, removal of a database, and/or a parameter change. Device logs persist across elections and will not be removed unless specifically removed by the administrator.
- General Logs: The general log contains a log of all transactions that happen on the
- device. This includes a log of every voter that was searched, unlock/lock transactions, and when a user logs in or out.

The following demonstrates how to retrieve the audit logs from the Touchpad units.

### RETRIEVING AUDIT LOGS

1. **From the Precinct Central Console, hover over the MDM menu option, and select “Upload Logs.”**

2. **Select the devices you wish to upload logs for by selecting the check box next to the device. Then select the log type you wish to upload. Information on which log includes which information is above. Then, click “Retrieve Logs.”**

3. **Once logs have been uploaded, hover over the Admin menu option, and select “View Log Files.”**

4. **Click the “Touchpad Logs” tab.**

5. **Logs that have been uploaded will be displayed by Asset ID. Select a log you wish to view one by one or download all logs by clicking “Download All Logs.”**
After voter history and logs have been removed from the Touchpads, the election database should be removed. This will remove all voter data, settings, and election history from the device. Follow the steps below to remove databases from Touchpads:

**DELETING DATABASES FROM TOUCHPADS**

- Navigate to your county’s Precinct Central Console and login. Hover over MDM in the menu bar, and click on “Database Management.”

- You will arrive at the Database Management page. From this page, you will select the devices you wish to remove databases from. This can be done by selecting:
  - An individual Touchpad
  - All Touchpads
  - Single, specific pages of Touchpads
  - A range of Touchpads by Asset ID

  Select devices by hovering over the “Select” control in the upper right hand corner and selecting the option you wish to use to select devices.

- Once you have selected the devices you wish to remove a database from, click on the dropdown box under “Step 2.” Select the “Remove” option.

- Click the green “Database Remove” button. The transaction will be queued.

- To monitor the database removal, click on the “Track Notifications” tab. The “Status” column will give information on whether or not the notification went through to a specific Touchpad device.
6. Software and firmware upgrades

Tenex understands the time-critical schedule of elections and works to integrate releases based around making sure the software components are ready for deployment well ahead of the beginning of the training for an election. With one of the highest employee to client ratios, Tenex has an excellent record in delivering software under tight timelines with excellent quality. As a firm believer in the agile software methodology, incremental releases will be provided on an iterative basis to facilitate the updating of training materials and receive client feedback.

- All releases follow a standard version number naming scheme using the Major.Minor.Patch.Build Number model:
  - Major – This will change only if a large overhaul or an architectural change is made
  - Minor – This will change when a new feature or a behavior change is added to the product
  - Patch – This will change when a small change or bug fix is completed
  - Build – This is a special version that is released for a customer with a specific fix for the customer

- A controlled change management process is followed for all incremental changes and product enhancements. All product releases follow a version naming convention of Major.Minor.PatchVersion.BuildNumber.
  - Major releases are generally not released more than once a year, while minor releases may be completed 1 to 2 times a year.
  - Patch and build versions (emergency releases) are completed as needed and usually done to fix a critical bug or accommodate a pressing customer request for changes.
  - Security updates, certificates for code signing and TLS encryption are rolled into one of the scheduled releases.

- Release updates are easy to install on each Touchpad device.
  - Tenex recommended configuration allows Touchpads to be updated using an MDM tool that can update devices with new releases without having to touch each device. This method allows the device to be updated by a central authority at California Secretary of State or individual jurisdictions if so chosen.
  - In addition to MDM a secret menu allows the application to be updated from within the application. Using password authentication this IT menu allows an administrator to manage databases, upgrade/downgrade applications etc.

Customers are informed of upcoming releases via email with detailed release notes of the changes. Customers will have the opportunity to receive online consultation and training on any new features and changes. Updates to customer environments are coordinated with individual based on election cycles and scheduled and not simply done when a new version comes out. These updates are only to be made if they have been approved by the California Secretary of State.

7. Archive Precinct Register
Once all data has been reconciled an archive of all check-ins is created in the form of a printable PDF file. The format resembles a printed precinct register/paper poll book complete with the voter’s signature.

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Voter ID</th>
<th>Polling Group</th>
<th>Birth Date</th>
<th>Registered Party</th>
<th>Poll Book</th>
<th>Drummer</th>
<th>Check-In Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Doe</td>
<td>123 Main St.</td>
<td>1234567890</td>
<td>Group A</td>
<td>01/01/1970</td>
<td>DW</td>
<td>Precinct A</td>
<td>01/01/2023</td>
<td>Checked in</td>
<td>Notes</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>223 Oak Ave</td>
<td>2234567890</td>
<td>Group B</td>
<td>01/02/1970</td>
<td>LW</td>
<td>Precinct B</td>
<td>01/02/2023</td>
<td>Checked in</td>
<td>Notes</td>
</tr>
</tbody>
</table>

*Figure 6: Precinct Register Example*
Touchpad Operations Manual
1. Unpacking the ePollbook Case

**Step 1: Unpacking the Case**
- Open the case by unlatching the locks
- Set the Touchpads onto the table
- Set the printers on the table
- Check that the printer and touchpad names match
- Remove all additional items: MiFi, cords, cleaning cloths and styli

If anything is missing or isn’t in working order, be sure to contact the Board of Elections.
2. Setting Up the ePollbook Unit

**Step 1: Turn on the MiFi**
- Hold down the power button until you see the MiFi screen illuminate
- Plug in the MiFi using the micro USB cord in the pocket of the carrying case
- Verify that the MiFi shows at least two bars of connectivity – 4GLTE

**Step 2: Set-up and plug in the Touchpad**
- Open the Touchpad by flipping the case open
- Set the Touchpad onto the table and plug it in
- If device does not automatically power on, press and hold the power button on the upper left-hand side of the device until the Apple symbol appears on the screen

**Step 3: Turn on the printer**
- Plug in the printer
- Press the power button on the top of the printer
- You will see one steady blue light on the front of the printer when it is turned on
**Troubleshooting the Epson Printer Connection:**
- A green status indicates a printer is connected
- A yellow status indicates a printer has been connected but is currently not
- A white status indicates a printer has never been connected

Verify the printer is properly plugged in and shows a blue light (no amber light). Touch the yellow or white printer icon to enter the printer connection settings and complete steps 1-6 below:
1. Touch Find Printer
2. The Select and Accessory window will appear
3. Touch “PRINTER ####” from the list
4. Touch TEST - The printer will print a test report confirming it is connected properly
5. Touch SAVE
6. The printer icon will now be **GREEN** indicating it is paired correctly

**Replacing the Epson Printer Paper (If needed):**
- There are 2 buttons on the top of the printer. One, is the power button, clearly indicated with a **POWER** label. Two, is the paper feed.
- If you need to change the printer paper, simply use the grey button to lift the top to expose the used paper roll. Remove the roll. Place a new roll in by simply dropping it in place. Then close the lid. The paper will automatically feed and cut. If it doesn’t, reopen the lid and pull the paper (1) and close the lid (2).
3. Getting to Know the Touchpad

The Troubleshooting Menu is in the upper left-hand side of the EPB software on ALL screens for accessibility.

Troubleshooting Menu:
- Brightness
- Volume
- Printer Selection
- Test printers
- Save printer selection
- Test camera
- View Touchpad info
- View device info
- View wireless info

**ONLY If you are instructed to do so, you can “kill the app” from within the troubleshooting menu. Scroll all the way to the bottom of the menu and touch the red SHUTDOWN button.**
4. Logging-In to the ePollbook

**Step 1:** Touch the START button.

**Step 2:** Enter your full first and last name using the pop-up keyboard. Then, touch CONTINUE.

**Step 3:** Answer the question, “Are you working at the advanced help desk?” If you answer yes, you are going to be processing voters as the super or advanced user.*

**Step 4:** Enter the password given to you (vote123).

*The ePB supports two user types that are determined by the county but this is customizable. Usually the advanced help desk would be the only one to process provisionals and change addresses. These options are customizable to the liking of the county.
**Step 5:** The EPB will search for its preprogrammed Bluetooth printer. When the printer has been found, it will print the Zero Report. Once the slip has been printed, touch the **green “CONTINUE” button.**

**IF** you receive an error message like this, there are a few options you can try. Touch the **blue “TRY AGAIN” button** to refresh the EPB and connect to the designated printer. **-OR-**

Touch the **blue “SELECT A DIFFERENT PRINTER”** to manually connect your printer to the EPB. This will open a new dialog box with three separate options. Touch the “FIND PRINTER” option to find printers in the area. Your printer should appear here. Touch its name for the EPB to connect. Once connected touch the “TEST” button to ensure the printer connected properly. Touch the “SAVE” button to stay connected to this printer.
5. The Launchpad

This is your Home Screen. After every check-in, you should arrive back at this screen to process the next voter. At the bottom of your Home Screen, you will see information on your connectivity and sideways status, battery status, as well as the location you are logged into, your job title, and your name.

To search for a voter by using a scannable voter ID card, touch the green VOTER ID SCAN button.

To search for a voter without scanning a voter ID, touch the yellow MANUAL VOTER SEARCH button.
6. Launchpad Menu Buttons

The blue menu button on the Launchpad shows additional functionality. This functionality includes:

- **Precinct Lookup** – Searching for a voter’s precinct by address
- **Spoil Ballot** - Spoiling and re-issuing or admin soiling a voter’s ballot
- **Check-in Logs** – Detailed log of all voters checked in
- **Check-in Totals** – High level totals of voters checked-in
- **Help Guide** – View help guides, pdf’s and video’s
- **Important Phone Numbers** – View important Election Day phone numbers
- **Re-print Authority to Vote Slip** – Reprint authority to vote slip
- **LOGOUT** – Logout temporarily, and/or close the election
7. Searching for a Voter

**VOTER ID SEARCH**
To process an eligible voter by scanning their voter ID, place the ID on the back-left side of the stand. Make sure the ID barcode is facing the iPad (you will see the barcode in the green barcode box to the right). It will automatically scan once it sees the barcode. Once the scanner has captured the barcode, the voter’s information will appear.

**DRIVER LICENSE SEARCH**
If the voter presents their driver license as a form of identification, poll workers can touch the blue “SCAN DRIVER LICENSE” button to look up the voter by DL. This does not store the voter’s DL # or any other information but simply uses the barcode to perform a search for the voter’s record. Once the scanner has captured the barcode, the voter’s information will appear.

**MANUAL SEARCH**
To process an eligible voter by using the yellow “MANUAL SEARCH” button.

If you are doing a manual search, there are three commonly used options:
- Last Name & House No.
- Last Name & Birth Year
- Last Name & First Name

TIP: Glare is the enemy when scanning an ID. Place the ID on the SCAN HERE sticker and move it slightly if needed. Make sure you DO NOT cover the barcode with your finger.
For this example, the “LAST NAME AND FIRST NAME” search option is selected. Enter the correct information needed in the fields. Touch the green “SEARCH” button.

This screen will list all applicable voters. Select the voter you are searching for; their name will become highlighted in blue. Touch the green “CONTINUE” button.
Note: At the top of the page you can filter the results by voters that are registered for your voting location and NOT in your voting location.

The voter is now confirmed and eligible to vote.
8. Processing an Eligible Voter

Once you have found the correct voter, you will arrive at the Voter Eligibility screen. If the voter is an eligible voter, the screen will display a green “Voter is eligible to vote.” message. Then, touch the green “GET VOTER SIGNATURE” button. The screen will automatically flip to the voter. Place two hands on the Touchpad and “flip” the Flip & Share stand towards the voter.

Direct the voter to sign in the box (circled in red to the right) and touch DONE. The screen will then flip back towards you. When finished, use 2 hands to flip the Flip & Share stand back to you. DO NOT “ROTATE” the stand.

Once the voter has touched DONE and the screen has flipped back to you, verify the signature and touch the green “ISSUE BALLOT” button. If the signature looks incomplete, push the yellow “SIGN AGAIN” button to have voter sign again.

TIP: DO NOT touch the screen when flipping the Flip & Share stand. Hold only the stand when flipping to and from a voter.
The Touchpad will now be ready to issue a ballot. Touch the green “COMPLETE CHECK-IN” button to proceed.

Congratulations! You have completed the check-in process. Direct the Voter to the privacy booth area. Touch green “PROCESS NEXT VOTER” button to return to the Home Screen and process the next voter in line.
9. Checking-In a Provisional Voter

There are multiple reasons that a voter may appear as a provisional voter in the EPB. A provisional voter is notated by a red “Voter is Not Eligible to Vote” message and a red tag on the top of the screen with the provisional reason.

This voter will NOT be issued a regular ballot, but they will be issued a provisional ballot with a Provisional envelope.

Reasons a voter may be issued a provisional ballot include:
- A voter demands to vote in the wrong voting location (polling location counties)
- A voter returned an absentee ballot
- A voter requested an absentee ballot and does not surrender it at the time of check-in
- A voter’s new address is invalid

To process a provisional voter, touch “PROCESS PROVISIONAL,” and continue the check-in process (see pages 13 and 14 for instructions on continuing the check-in process).
10. Absentee Requested Voter

When a voter has requested an absentee ballot, they may vote in the precinct if they surrender that absentee ballot. If the voter does not surrender the absentee ballot at the time of voting, they will receive a provisional ballot.

If the voter does not surrender their absentee ballot, touch NO.

If the voter surrenders their absentee ballot, touch YES.

Voter will be issued a regular ballot. Follow steps on pages 13-14 to process the voter.

Voter will be issued a provisional ballot. Follow steps on page 15 to process the voter.
11. Curbside Voters

Some states do offer curbside assistance for voters that are unable to easily leave their cars. With curbside voting, a poll worker will be bringing all necessary materials, including a ballot, to the voter’s car. Depending on the counties specifications, poll workers can bring the Touchpad outside for signing by the voter, or can just mark voters as curbside for reporting purposes.

Find your voter whether by manual search or scanning a Voter ID. Touch the yellow “MORE OPTIONS” button.

Select the “Curbside Voter” option and confirm the voter is requesting to vote curbside. Touch the green “YES” button to continue.

The voter is now eligible to vote as a curbside voter and is confirmed by the yellow box labelled “Curbside Voter”. An election officer shall deliver the ballot to the voter and continue the check in process.
12. Voters in the Wrong Location

*Polling place based counties only

For counties that have not gone to vote centers, voters can appear to vote at the wrong polling location. When a voter is in the wrong voting location, there are three possible scenarios: the voter is re-directed to their correct location, the voter updates their address to move in to your precinct, or the voter demands to vote in the incorrect location and is issued a provisional ballot. (Please ensure you are using the designated “Polling Place” ePB)

When a voter is indicated to be in the wrong location, choose to either REDIRECT the voter using the green “RE-DIRECT VOTER” button. If the voter is updating their address, touch the yellow “UPDATE VOTER INFO” button.

After pressing REDIRECT VOTER, a map will appear with instructions for their correct precinct location.

Redirecting a Voter: Use the blue arrow button to flip the screen towards the voter and/or the blue envelope button to text or email the voting location information to the voter. To expand the map image, choose the blue button at the bottom. A large map will appear and you can print turn-by-turn directions for the voter.

Touch the green “CONTINUE” button to complete the transaction and print the voter redirect slip.

*When touching the blue envelope to email or text a voter directions to their polling location, the following pop-up will appear. Select the checkbox next to the type of communication you would like to send the voter. Then, enter the voter’s email or phone number. Touch CONTINUE to send the message.
**Update Voter Info:** Touch the **yellow** “UPDATE VOTER INFO” button for the voter whose address you wish to update.

From Voter Update, touch the **blue** “EDIT” button next to the voter’s address.

Touch the **green** “CONTINUE” button.
The screen here will appear. Enter the voter’s new house number in the house number box. Enter the voter’s new street name in the street name box. Touch the green “SEARCH” button. A list of addresses that correspond to the entered information will appear. Select the voter’s correct address and touch the green “CONTINUE” button.

If the voter has an apartment number to enter, touch YES and enter the appropriate information in the text fields that appear. If the voter does not have an apartment number, select NO.
Allow the voter to confirm their address update, flip the flip and share case towards the voter. Once they have confirmed, continue to the Voter Eligibility screen.
13. Spoil/ Defaced Ballot

Select Spoil Ballot from the blue menu on your Home Screen. The Spoil Ballot screen will appear. Using the search fields provided, enter the information of the voter whose ballot you are attempting to void. Once found, select the voter’s record and touch the green “SPOIL” button.

The Spoil Ballot pop-up will appear. Select a reason for spoiling the ballot:
- Voter requested spoil – select this option if the voter made a mistake on their ballot. This spoil will count against their 3 ballot rule.
- Administrative issues spoil – select this option if the poll worker/election official made a mistake with the voter’s ballot. This spoil will not count against their 3 ballot rule. This spoil option can be turned off.

Then, select if you are issuing a replacement ballot. Touch the green “CONTINUE” button when you have answered both questions.

A pop-up will appear asking if you are sure you wish to SPOIL the ballot. Select YES if you are soiling the ballot. The ballot is now soiled and a new ballot can be issued.
14. Precinct Lookup

To find a voter’s correct precinct by using their address, select the Precinct Lookup button from the blue menu on your Home Screen. The screen here will appear.

Enter the voter’s house number and the first 4 letters of the street name in the fields provided. Touch the green “SEARCH” button.

The voter’s precinct information will be shown. From this screen, you can print the precinct information, text or email the information to the voter, enlarge the map, print turn-by-turn directions or flip the screen so that the voter can view the information and the map.

TIP: When entering the street name, just enter the first 3-4 characters of the name (example: WASH [Washington]). A list of street names with “WASH” in them will show. Choose the correct one from the list.
15. Help Guides and Phone Numbers

Touch the menu button at the top right hand corner. Touch the “PHONE NUMBERS” option.

There is a place within the ePB that houses important information that poll workers can easily refer to on Election Day.

A list of the available help guides appear. Touch the guide you are wanting to open.

The guide will open and a short description will appear. Touch the blue “OPEN DOCUMENT” button to proceed.
16. Closing the Election

To close your election at the end of the day, select the LOGOUT button from the blue menu icon on your Home Screen.

This pop-up will appear. Touch the yellow “CLOSE THE ELECTION” button.
Type in the correct password to lock the device. Touch the green “LOCK DEVICE” button when the password has been entered. Your device will now synchronize which is indicated by an orange message. Wait until the message disappears to continue.
Your election has now been closed and your device has been locked. Touch the gear shift icon in the upper left hand corner to shut down the device.

Scroll to the bottom of the dropdown menu and touch the red “SHUTDOWN” button.
Touch the **green “YES”** to shut down the device. The application will close.
1. Data Uploads

System Settings

Precinct Central is a highly configurable system and can be easily adjusted as requirements change overtime. However, from election to election there are normally very few settings that need to be configured.

1. Begin on the Precinct Central page and click on ‘SETUP’ and navigate to the ‘Election’ tab.

2. Four basic settings are updated for each Election including the Election Date, Election Title, Election ID and the Registration Cut-Off Date.

3. If the election is a primary, settings for party declaration should be reviewed and updated.
4. The list of valid party codes and names should be reviewed and updated depending on the election type.

5. Certain areas of the software present a list of data for data input. These lists can be customized through the Lists tab in Setup.

Some examples of lists are Incident Types, ID Types, and Name Change Document Types.
2. Load Level-0 Data

Data load scripts are initially setup by Tenex using the Precinct Central Data Studio. These are setup based on the file formats and data requirements of individual customer organizations. Once these initial scripts are completed, all data loading functions are directly available on the Precinct Central Console and the County can load data and create data packages as needed.

Terminology

Level-0 Data Files: The initial set of data files for loading voter data, street data, and location data

Level-0 Data Package: Package created for loading data to the iPads.

Delta Files: Files used to automatically update the iPads after the initial data load.

Journal Files: Incremental data updates received from the voter registration system

Creating / Receiving Level-0 Files

Level-0 data files will be created by the County and sent to the Precinct Central server using a SFTP process. Once the files are sent to Precinct Central, they will be available on the Console to start the data load.

The following files are sent from the county:

1. Voters.txt
2. Streets.txt
3. Precincts.txt
4. Parties.txt
5. Consolidations.txt

Other files may be sent for poll worker information, ballot codes, and other data that may be used for additional modules.

Admin – Data Management

The following section can be navigated to by going to Admin – Data Management. The left hand bar (shown to the right) will be displayed. Select the options on this menu to navigate through the data management section.
Admin – Data Management – Load Level-0 Files

The files sent to the Precinct Central SFTP server can be viewed through the Precinct Central Console.

1. **Load the Level-0 files in the order listed by clicking the checkbox next to the step. Then, click START.**

Level-0 files currently available on Precinct Central Data Studio are displayed on the Console. If the file has not been processed yet, the name will display in green.

The file size and data type are displayed for verification.

The date and time that the particular type of files was loaded is displayed for verification.
3. Verify Level-0 Data Load

Admin – Data Management – Verify Data
This page displays information about the last data load and provides high level totals, detailed precinct totals, information on missing / corrupt data, break-down by voter status.

1. Verify high-level totals of the information loaded through the Level-0 data load process.

2. Run the “Voter Statistics by Precinct” report to create a printable PDF report.

This report shows totals by precinct, party, and voter status.

This report can be saved as a PDF and kept as a record of voter data totals at the point in time.
3. Review information on any missing or corrupt data that is found (these areas are highlighted in red). Click on the item to get a detailed list of voters with potential data issues.

4. Review the interactive graphs to see the breakdown of voter information by status, eligibility criteria, and ballot style types (DEM, REP, NPA). Click on the graphs to get a list of voter totals.

5. Run the Ballot Style Summary – Voter Data report to create a printable PDF report. This report shows voter totals by precinct and ballot style. This report can also be saved as a PDF and kept as a record of voter data totals at a point in time.
Setup – Streets

Street information imported during the data load process can be viewed and modified if required on the Precinct Central Console.

Use the quick filters and data grouping functions for ad-hoc reporting.

Use the advanced search features to run detailed reports of street information.
Setup – Locations
Voting location imported during the level-0 data load process can be viewed and modified if required on the Precinct Central Console.

1. View the address the directions for each location and review the set-up for combined voting locations. Filter locations by “Early Voting and Election Day” as well.

2. See the maps for each location to confirm how the map will appear on the poll book.
Admin – Ad-Hoc Summaries – Voter Summary

Ad-hoc summaries provide the ability to further verify data based on a variety of summary options. These can be used to gain total breakdowns in any combination of criteria.

Use a combination of data items to generate totals. This example shows voter totals by resident city.
4. Create Data Package

Once all the relevant data is loaded and verified in Precinct Central, a data package needs to be created to download to individual touchpads.

Admin – Data Management – Manage Packages

The Manage Packages page allows creating new data packages and displays information on past packages created and details on which Touchpads the package is loaded on.

1. To create a new package, enter a descriptive name for the package, select “Production,” select “Election Day”, and click the START button.

2. Once the package is successfully created, a message will be displayed. If there were any issues, an error message will be displayed.

3. Each database package created for download is assigned a unique number. The number and package description are available to validate that the correct package is loaded on Touchpads.

Click “Deployment Details” to see a detailed report of Touchpads currently loaded with the package.
How is an Election loaded to the unit?
What method of data transfer does the device use?
Application hosted locally or via cloud?

**Download Data Package to Local FTP Server / Cache Box**
Once the data package is properly created, it is ready to be downloaded to the individual Touchpads. The file can be directly downloaded to Touchpads from the Precinct Central server. However, for large counties with a greater volume of data, a local download option will be setup that will allow substantially faster downloads. Using SFTP, copy the data package to the local network FTP server / cache box. The next steps document how to download the data package from the local server to the individual Touchpads.

**Download Data Package to Touchpads**

Manage – Database Management

Once the data package is properly loaded to the cache box, the database can be remotely sent out to the Touchpads from the Precinct Central Console.

1. **Select all of the Touchpads you would like to download the database to.**

2. **Select “Download” from the dropdown box, and select “Cache Box” for download from. Enter the cache box information.**

3. **Select the database type you would like to download and click “Start Database Download”**.
4. A gray message will appear indicating that the download is in progress.

5. Once the database has downloaded, it will begin to unzip. A purple message will appear indicating that it is unzipping.

6. Once the database has been downloaded, a green message will appear. Close and re-open the application.

7. The database has been successfully downloaded.
5. Verify Data Package Loading

Every time a data package is loaded to a Touchpad, an event is logged on the Touchpad and the Precinct Central server. There are various reports and audit logs available to validate and report that the correct information has been downloaded to each Touchpad.

**Verifying Data Package on Touchpad**

Each Touchpad reports on which DB package, software version, and iOS version are loaded. It also reports on the total number of voters for the county and the total number of voters for the individual voting location.

Touch the “Device Info” button to view details about the device. Details about the Touchpad data and software are available under the “Touchpad Info” section.

The total number of voters loaded in this Touchpads countywide database can be seen in the “Session Bar.” A voter total for the preassigned voting location is shown underneath the countywide total.
Verifying Data Package on Precinct Central Console
Several detailed reports are available on the Precinct Central Console that assist in confirming that all Touchpads are properly configured with the correct software version, time settings, and database packages.

Monitor – Devices

Select the database package that is currently being downloaded from the “Package” dropdown.

The “Deployed” total will change to display how many Touchpads have downloaded the package.

Touchpad deployment information can be viewed in a variety of formats.

- Data can be exported to Excel to import into other systems.
- Data can be viewed and downloaded in various PDF reports such as Inventory List, Deployment Details, or a Detail Report.

The Deployment Details report shows a list of Touchpads with information about the package deployed, the iOS, and the Precinct Central version.
6. Monitoring

Monitor
Precinct Central has a complete monitoring platform accessible from the Precinct Central Console. This allows the central election office to monitor, in real-time, all Touchpads, ballot inventory, poll worker attendance, check-ins, and more. By clicking on the “Monitor” tab, a countywide overview is displayed which indicates any immediate issues in any monitoring area. This countywide monitoring view shows an overall status of every aspect of Precinct Central’s monitoring. Use this page to get a quick, high-level overview of what is going on.

View quick information on the battery status, communication status, and lock/unlock status of Touchpads in the field. View information about any pending incidents (tickets in the field), missing poll workers, or Touchpads that are not communicating.
7. Touchpad Status

Monitor – Touchpads

Each Precinct Central Touchpad sends a heartbeat message to the central server with a status of the health of the Touchpad. This information is reported on the Precinct Central Console and alerts the election office of any issues with individual Touchpads and voting locations. Information such as battery life, printer status, user login, and communication is readily available in easy to visualize screens.

![Precinct Central ePollbook – Use Procedures](image)

**Communication** displays Touchpads or locations that may be having issues communicating with the central server. At the beginning of the day, election workers may forget to turn on routers. This status will help identify any locations where potential issues may arise.

**Power Management** displays Touchpads that may not be plugged in or are running low on battery. This should be monitored throughout the day.

**User Status** shows information on election worker login status.

**Lock Status** will change to “Unlocked” for all Touchpads as they are opened on Election Day. At the end of the day, Touchpads will return to the “Locked” status.
Click on a Touchpad to view specific details in the “Device Details” pop-up.

On the “Device Details” screen, view information such as the data package details, opening, closing, and running totals for check-ins on the Touchpad, who is logged-in, battery status, and more. Click on the “Heartbeat History” tab to view the history of heartbeats.
8. Sending Messages to Touchpads

MDM – Notify Locations

Remotely instant message Touchpads directly from your Console. Select all Touchpads or specify certain locations, poll workers, or devices and send messages.

Select the Touchpads you would like to send the message to. Enter the message and click “Send Message.”
9. Reporting

Checkins – Checkins Tab
Touchpads send real-time, detailed check-in information for each voter that is checked in during the voting period. These check-ins can be viewed, sorted, filtered, and queried on the Precinct Central Console “Checkins” tab.

View quick graphical representations of check-ins.
Filter these check-ins to create custom reports such as which voters requested assistance or voted curbside by location and date.

Roll-up totals are summarized by ballot type (regular, provisional, spoil) with totals issued. Click on a total to view only those check-ins.

Use the summary bar and filters to create custom check-in reports.

Use the search fields to search all check-ins for a specific voter name, ID, or more.

View check-ins in a list view, table view, PDF view, or graphical view.
10. Voter Listing

[Image of voter listing]

11. Report Showing Voters Directed to Different Locations

- Checkins – Transfers Tab
  Voters that show-up at the incorrect polling location can be transferred or re-directed through the Touchpad to their correct polling location. These transfers are recorded and sent in real-time to the Precinct Central Console.

[Image of voter transfers table]
12. **Average Processing Time of Voters at Polls**

Admin – Reports – Productivity and Performance
Precinct Central generates reports on all aspects of the system. Reports on the average processing time at the polls are generated from this page. Reports can be created by location, precinct, or even poll worker.

![Productivity Reports by Location](image)

13. **Export Voting History**

Admin – Data Management – Export Voter Credit
The Export Voter Credit process will create a text file of all voters that have checked-in on the poll book. This file will be used to give voting history credit for voters.

![Export Voter Credit](image)
14. Archive Precinct Register

Admin – Data Management – Archive Precinct Register

Once all data has been reconciled, an archive of all check-ins is created in the form of a printable PDF file. The format resembles a printed precinct register complete with the voter’s signature. This can be saved as an archive of the election based on record retention regulations.
15. Security Standards

The Precinct Central electronic poll book software is secured at many levels. Tenex recommends the use of strict passwords for all aspects of Precinct Central as a security policy. This document explains the various passwords and security parameters that should be considered when using the software.

<table>
<thead>
<tr>
<th>Software Installation Password</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintained by: Tenex</td>
</tr>
<tr>
<td>Update Frequency: every election</td>
</tr>
<tr>
<td>These passwords are used for installing and updating the Precinct Central App on the Touchpad and for registering a Touchpad with the central server. Generally, the password will be updated before every election.</td>
</tr>
<tr>
<td>A strong password is used:</td>
</tr>
<tr>
<td>o At least 12 characters long, using a non-dictionary word</td>
</tr>
<tr>
<td>o Combination of lowercase letters, uppercase letters, numbers and special characters</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Precinct Central Touchpad Application Login Passwords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintained by: Customer</td>
</tr>
<tr>
<td>Update Frequency: every election</td>
</tr>
<tr>
<td>The Touchpad has five different passwords that can be setup and used based on system</td>
</tr>
<tr>
<td>configurations. Tenex recommends strong password policies for these passwords including:</td>
</tr>
<tr>
<td>o Each password should be different.</td>
</tr>
<tr>
<td>o The passwords should be changed every election.</td>
</tr>
<tr>
<td>o The admin password should not be provided to anybody other than anybody other than the</td>
</tr>
<tr>
<td>county admin staff.</td>
</tr>
<tr>
<td>o A strong password scheme should be used:</td>
</tr>
<tr>
<td>▪ At least 12 characters long, using a non-dictionary word</td>
</tr>
<tr>
<td>▪ Should consist of a combination of lowercase letters, uppercase letters, numbers and</td>
</tr>
<tr>
<td>special characters.</td>
</tr>
<tr>
<td>o Election workers should logout of the application when not in use.</td>
</tr>
</tbody>
</table>
Precinct Central ePollbook – Use Procedures

### Precinct Central Console Passwords

<table>
<thead>
<tr>
<th>Maintained by: Customer</th>
<th>Update Frequency: every election</th>
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</thead>
<tbody>
<tr>
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</table>

The Console website requires a valid user login that is assigned to security groups and controls the users’ authorization level. Tenex recommends strong password policies for the Console user access including:

- Each user accessing the system should be assigned a unique login ID to allow tracking individual actions and change completed.
- Passwords should be changed every 30 days, or at least every election cycle.
- User access should be limited to basic viewing privileges if administrative update access is not required.
- A strong password scheme should be used:
  - At least 12 characters long, using a non-dictionary word
  - Should consist of a combination of lowercase letters, uppercase letters, numbers and special characters.
- After three incorrect login attempts, passwords are disabled and can only be reinstated by an admin user.

### Database Passwords

<table>
<thead>
<tr>
<th>Maintained by: Tenex</th>
<th>Update Frequency: as needed</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
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</table>

The database passwords are maintained by Tenex with no direct visibility or access to the end user. This password is used for accessing the database and is used automatically by the programs.

### FTP Passwords

<table>
<thead>
<tr>
<th>Maintained by: Tenex</th>
<th>Update Frequency: as needed</th>
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<td></td>
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</table>

The FTP passwords are maintained by Tenex with no direct visibility or access to the end user. This password is used for transferring data files between environments.
Precinct Central ePollbook – Use Procedures

<table>
<thead>
<tr>
<th>WiFi Access Point Setup</th>
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</thead>
<tbody>
<tr>
<td>Maintained by: Tenex/ Customer</td>
</tr>
<tr>
<td>o Precinct Central communicates over a secure WiFi connection. For wireless router setup, Tenex recommends the following security policy:</td>
</tr>
<tr>
<td>§ WiFi passwords should have WPA2 PSK encryption for the best security.</td>
</tr>
<tr>
<td>§ The SSID on the router should be non-broadcasting.</td>
</tr>
<tr>
<td>§ The router passwords and SSID scheme should not be provided outside of senior level IT staff.</td>
</tr>
<tr>
<td>§ A strong password scheme should be used:</td>
</tr>
<tr>
<td>- At least 32 characters long, using a non-dictionary word</td>
</tr>
<tr>
<td>- Should consist of a combination of lowercase letters, uppercase letters, numbers and special characters.</td>
</tr>
</tbody>
</table>