Backing up an Election

ClearCount Quick Guide

Backing up an election consists of exporting it to an external drive and then securing the drive. Backups typically occur every night for the duration of an election after halting daily scanning operations. A backup can be performed during any phase of an election. However, backups cannot occur during an operation, such as scanning or modifying. The time required to back up an election depends upon its size.

Backups comprise election-specific data, including related card image files, and ClearCount log entries. Data and card image files are backed up to a folder named Backups/ElectionName. Backups do not include computer-specific server log entries, Microsoft Windows logs, or ClearCount user accounts.

Note:

Before backing up an election, refer to the following items:

- You must have access to the Election Administration page to back up an election. See the

- ClearCount Election Administration Guide if additional information is required.

- Make sure the drive partition is formatted as one of the following: NTFS, FAT32, ext2, ext3, or ext4.

- Although the above formats are supported, we recommend using NTFS to format the drive since it works with all ClearCount supported hardware machines.

- We recommend a drive running at 7200 rpm. A 5400 rpm drive can be used but backups will take longer.

- We recommend USB 3 connections (a USB 3-capable drive and a USB 3-capable port) for large elections. USB 2 or USB 3 connections can be used to back up small and medium elections.

- Make sure you are logged out of the ScanServer before attaching the external backup drive. If you log in to the ScanServer as an administrator before attaching the drive, you will not be able to see the external drive.

- ClearCount automatically mounts and unmounts the drive. There is no need for the user to log into and then log out of the ScanServer to mount and unmount the drive.

- To format a drive, log into an election administration station and format the drive using the Windows Quick Format option.

To back up an election:

1. Connect the external drive to the ScanServer computer. Make sure you are not logged in.

2. Log into an election administration station.

3. Access the Election Administration page and locate the row for the election you want to back up.

4. Click the button in the Actions column for the election and select Backup Election from the dropdown menu. The Start Election Backup page appears.

5. Determine whether the targeted external drive has enough free space. The backup must fit on one external disk. If a device connected to the election administration station lacks sufficient free disk space, its name appears in red. Note: The minimum reported size is 0.5 GB, however, small elections may require less space.

6. Select the external drive and click Start Backup. The drive is automatically mounted to the ScanServer and the backup process begins. ClearCount uses the election name for the backup. A warning is displayed if an election with the identical name already exists on the selected external drive. In this situation, if you click:

   o **OK** — The election on the external drive is overwritten with an updated version. For efficiency, previously backed up card image files are not replaced.

   o **Cancel** — Focus returns to the Start Election Backup page so you can enter a different name in the New Election Name field. If a backup with the same name as the election does not yet exist, ClearCount copies the entire election, even if the prior backup file was renamed in Windows or the election was previously backed up on a different external drive. In these cases, previously backed up card image files are recopied.

7. Once the backup process starts, the Server Background Jobs window is displayed. It includes all jobs started since the last restart of the ScanServer. The Progress

column for the running job refreshes every 10 seconds while the job is running. Once the job completes, the Status column changes from "running" to "complete." If the election is very small, the Server Background Jobs page Status column simply displays "complete" since the job finishes quickly.

Note:

For large capacity drives or drives with multiple elections, the backup process can take several minutes before any data is displayed from the election administration station.

Logging out of the election administration station does not impact the backup.

8. Once the backup is complete, the drive can be pulled from the ScanServer.

Note:

Before pulling the drive from the ScanServer, check the Server Background Jobs page and the Web Activity Log page to make sure no background jobs related to the backup is running.

9. Secure the external drive in a safe. The backup can be restored onto the same or a different ScanServer.

See also "ClearCount Quick Guide: Restoring a Backed-Up Election"