

Requirements for Election Night Reporting System to Support Risk Limiting Vote Tabulation Audits

(additions beyond those specified in Colorado's ENR "Request for Documented Quote")

Main authors: John McCarthy and Neal McBurnett, 3/13/2017

1. Data

- a. Provide county-level counts of votes for each candidate (or proposition choices) plus undervotes and overvotes in each contest on the ballots for an election, including results for parts of multi-county districts that fall within the county and districts that only comprise part of the county
- b. Support for recording and reporting undervotes, overvotes and any other ballots that have no vote for a particular contest, so we have accurate counts of the number of ballots which contain each contest in each county, and ideally for each batch, precinct, etc.
- c. Indicate number of winners for each contest, both on web site and in downloaded data. Without this, we can't determine the margin of victory.
- d. Merge results from multi-county contests and provide contest-wide counts for each candidate (or proposition choices) plus undervotes and overvotes in each such contest
- e. Provide results for each contest by county and district on election night, and final results by Election night +9
- f. Report number of envelopes received from drop-off boxes and vote-by-mail
- g. Report number of ballots still remaining to be processed each time results are updated

2. Input and output capabilities

- a. output all results in standard format that RLVTA software can import easily
- b. The public should be able to download preliminary and official results in the new standard NIST-EAC Election Night Reporting xml format as well as a well-documented .CSV format for both the entire state and individual counties
- c. A convenient API should be available so that auditing tools can automatically download all of the above. Cf. [open source Clarify software for Clarity ENR](#)

3. System Administration

- a. Audit logs that record all actions taken by parties logged into the system (date, time, name of principal, action taken, etc.). If someone logs in and changes candidate name "Bob" to "Alice" and "Alice" to "Bob", it would be important to know who!
- b. Perhaps a backup module of some sort