Review of Vendor Technology
Proposed in Response to Georgia RFI of August 2018

Vendor Technology Quick Comparison

The Georgia RFI requested proposals for 3 voting methods that utilized electronic ballot marking devices (BMDs). BMDs do not tabulate or retain votes in computer memory[i]. The are designed to allow those who need assistance to independently mark paper ballots electronically, in compliance with HAVA mandates. Any technology proposed by vendors below that has DRE functionality is not a BMD.

Clear Ballot/Clear Access

1. Produces **human readable vote marks that are scanned and tabulated**
2. Prints **full ballot** for verification, not just selections
3. Allows **all voters to use same ballot size, style** and appearance
4. **Does not embed voter selections** in nonhuman readable **barcodes**
5. **Does not use thermal paper** for printed ballots (uses COTS printers)

Hart InterCivic Verity Touch Writer

1. Produces **human-readable vote marks that are scanned and tabulated**
2. Produces **full ballot** for verification, not just selections
3. Allows **all voters to use same ballot size, style** and appearance
4. Uses barcodes that contain election and location data but **no barcoded votes**
5. Barcode could be a vector for nontransparent instructions for tabulator

ES&S ExpressVote Universal, Dominion Image Cast X, Unisyn FreedomVote Tablet, Smartmatic A4-600[ii]

1. Voters' sections are **embedded in nonhuman readable barcodes that are used to tabulate the votes**
2. Printed "record" has summary of voter selections only, not all choices on ballot
3. Paper records are **not voter-verified** so not authentic source documents for post election contests, recounts and audits
4. The new **"hybrid"** systems are **direct-recording electronic (DRES) computers with vote-marking functionality. The DRE functionality** allows for casting, tabulating, and storing votes and printing and storing paper "records" in every device. Barcoded records cannot be voter-verified so cannot be used as authentic source documents for post-election recounts, contests or audits. The DRE functionality may allow tabulations to be manipulated without detection[iii]
5. Requires thermal paper to be purchased from vendors at additional costs per ballot

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[i] "By definition a BMD only records votes and does not tabulate nor retain them as is the case with DREs. Recently some manufacturers have modified systems initially sold as BMDs to allow them to be configured to tabulate and retain votes in computer memory (like a DRE) as well as printing paper ballots. In this discussion, whatever a voting system is called, if votes are recorded and retained in computer memory, they are considered direct recording electronic (DRE) voting systems." https://www.verifiedvoting.org/ballot-marking-devices/

[ii] Unverifiable process compares barcoded votes to human readable votes before tabulation.

[iii] "Serious design flaw in ESS ExpressVote touchscreen: 'permission to cheat' ." https://freedom-to-tinker.com/2018/09/14/serious-design-flaw-in-ess-expressvote-touchscreen-permission-to-cheat/