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ALTERNATIVE AUTOMATED ELECTION SYSTEMS

What RA-9369 Requires

- Automation that reflects the true will of the people, by having:
 - Community-specified transparency
 - Community-specified accuracy-correctness
 - Community-specified auditability
 - Community-specified security (tamper-proof)
 - Adapted to local culture (easy for community to learn to use)
 - Modifiable and maintainable (open source) by local IT community

Specifics of RA-9369

- Paper ballots readable by both voting machine & human-tabulator.
- Real-time voter-verifiable paper audit trail, with after-election Comelec website voter verifiability.
- At end of polls prior to transmission, public counting of ballots, using projector attached to voting machine.
- Digital signing of precinct ER by BEI chairman, using personally-safeguarded private key.

- Posting of digitally-signed precinct ER's at Comelec municipal websites, for the public to download and verify correctness by verifying signatures.
- Public canvassing of ER's, by showing contents of each ER as it arrives, using a projector attached to canvassing computer.
- Digital signing of SOV and COC by the BOC chairman, using personally-safeguarded private key.
- Public canvassing of COC's at the provincial, senatorial, and party-list levels, by showing contents of each COC as it arrives, using a projector attached to canvassing computer.

- Posting of digitally-signed SOV and COC at Comelec provincial, district, and national websites, for the public to download and verify correctness by verifying signatures.

Experience of Other Countries

- Other countries with successful AES have done so by locally developing their own AES, and usually by making the AES source code available for review by their IT communities.
- The locally-developed AES are custom-suited for their unique national needs.

Australia's EVACS

- The Australian EVACS was developed by Australian company *Software Improvements* and is open source.
- Voters can choose to vote manually, or by using EVACS. Manual paper ballots are scanned using very accurate OCR systems and combined with the EVACS count.

Estonia's E-Voting System

- Estonia authenticates its voters using a Digital ID card system. Voting is online Internet voting, and voters can change their minds and vote many times during the 7-day advance voting period.
- The source code of the server program has recently been made opensource.

India's EVM

- The Indian EVM is dedicated hardware with push buttons for selecting each candidate, with hardware lock to ensure “onevoter - one vote”.
- Developed by Bharat Electronics Ltd., Bangalore, and Electronic Corporation of India Ltd., Hyderabad.

Proposal for Philippine-Designed PCOS Voting Machine, CCS Canvassing Machine, and Public- Access Website Programs

- Based on the successful experience of other countries developing their own AES that will be suited to their unique needs, and considering the availability of hardware-design and programming talent, it is time for Filipinos to make their own AES, to prevent foreign control of our elections.