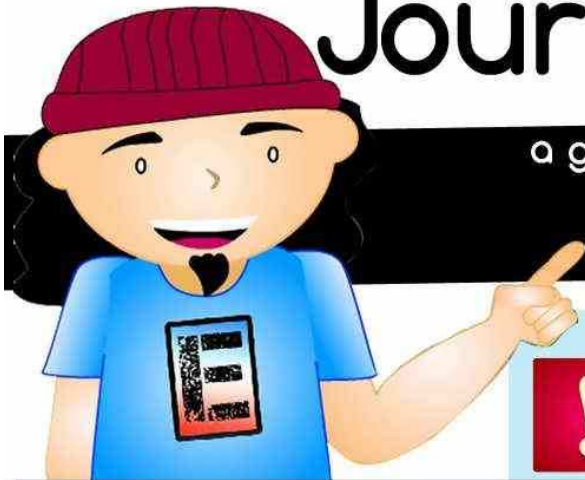


Journey of the Vote

a guide to the May 2010 automated elections

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 Sources: Comelec, CenPEG, AESWatch



LEGEND



What can go wrong

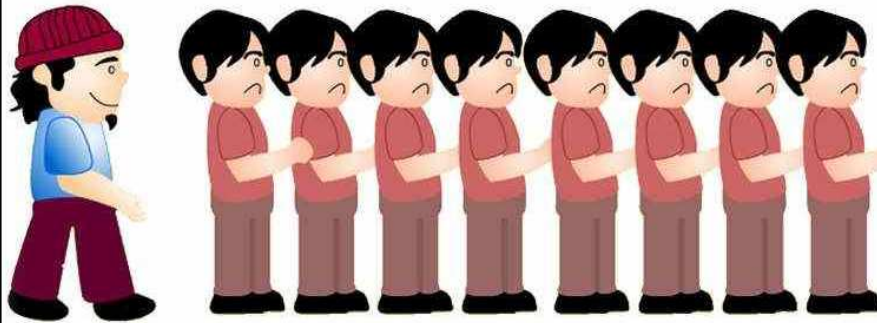


What the Comelec says



What voters can do

1 Voter shades oval slots next to chosen candidates on the paper ballot and feeds it into the Precinct Count Optical Scan (PCOS) Machine.



Each precinct may serve up to 1,000 voters, so expect long lines.



Comelec will extend voting day until 12 midnight if necessary.



Go to the precinct early. Voting time is from 7 AM to 6 PM.



Each ballot is 25 inches long. Voters have to go through a lengthy list and shade up to 36 names (in municipalities), which may take time.

Election officers may not have enough felt tip pens for voters.



Prepare your list of candidates and shade the oval next to their names as fast as possible to give way to other voters.

Bring extra felt tip pens and lend them to voters if necessary.

The Board of Election Inspectors or BEI conducts the processing, counting and recording of votes in the precinct. It has three members that are authorized to handle the ballots and assist the voters.



Power outage



PCOS units have batteries that can last for 16 hours.


For complete loss of power at the start of election day, precinct will resort to manual voting.


(Note: As of March 25, Comelec has not issued guidelines for manual voting)




Bring flashlights. If a machine is not working, alert the BEI and PPCRV volunteers.



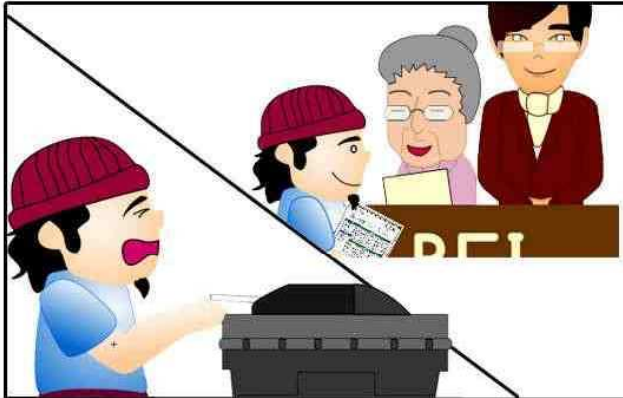





A ballot is rejected
(Note: No replacement ballot shall be issued to a voter whose ballot is rejected by the PCOS.)




Make sure your ballot is not crumpled or folded.
 If the machine spits out your ballot, insert it a second time.
 If the PCOS still rejects the ballot, return the ballot to the BEI Chairman.







Machine jams




There are 6,380 spare PCOS machines that can be used if a unit is not working.




Hold on to your ballot and contact a BEI immediately.






Pre-marked legitimate ballots might be fed into the machine




Testing and sealing of the PCOS machine will be done at least three days before election day to ensure that it will not be tampered.





Take part in the testing and sealing procedures, and secure the polling places where the machines are installed.

overvoting – voting for more than the allotted number of seats per position. For example, shading more than one name for president.


A voter can undervote (ex: choosing only 3 senators instead of 12) but cannot overvote.







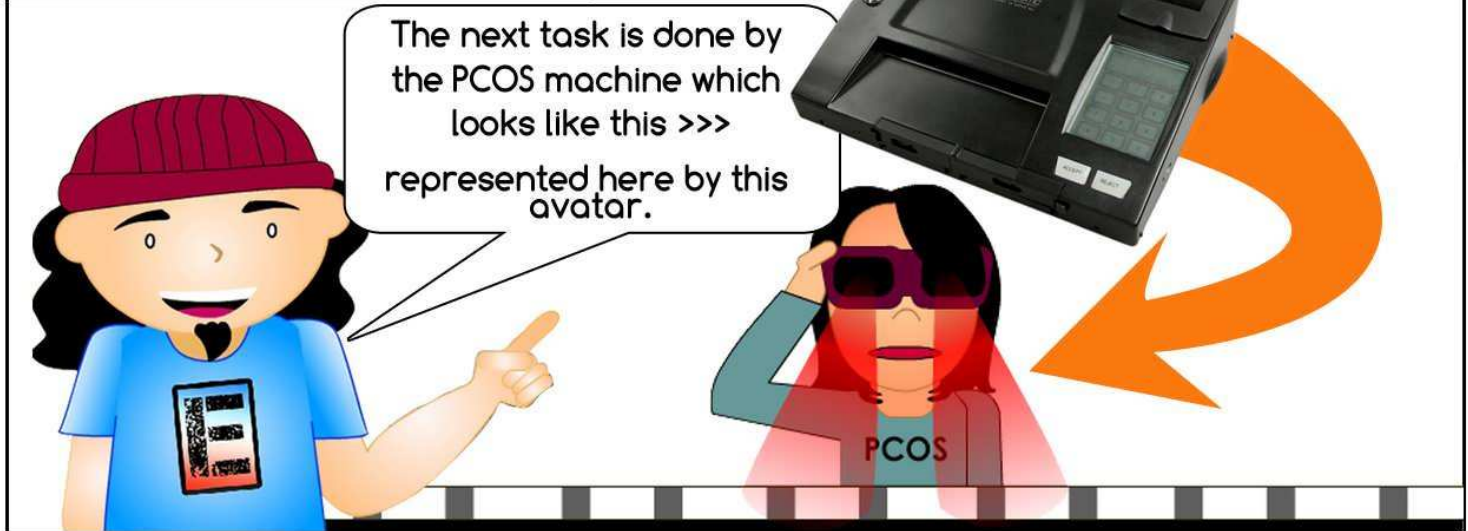
A ballot may be rendered void or unreadable by the machine due to markings or scratches on the security marks on the edge of the paper, or overvoting.



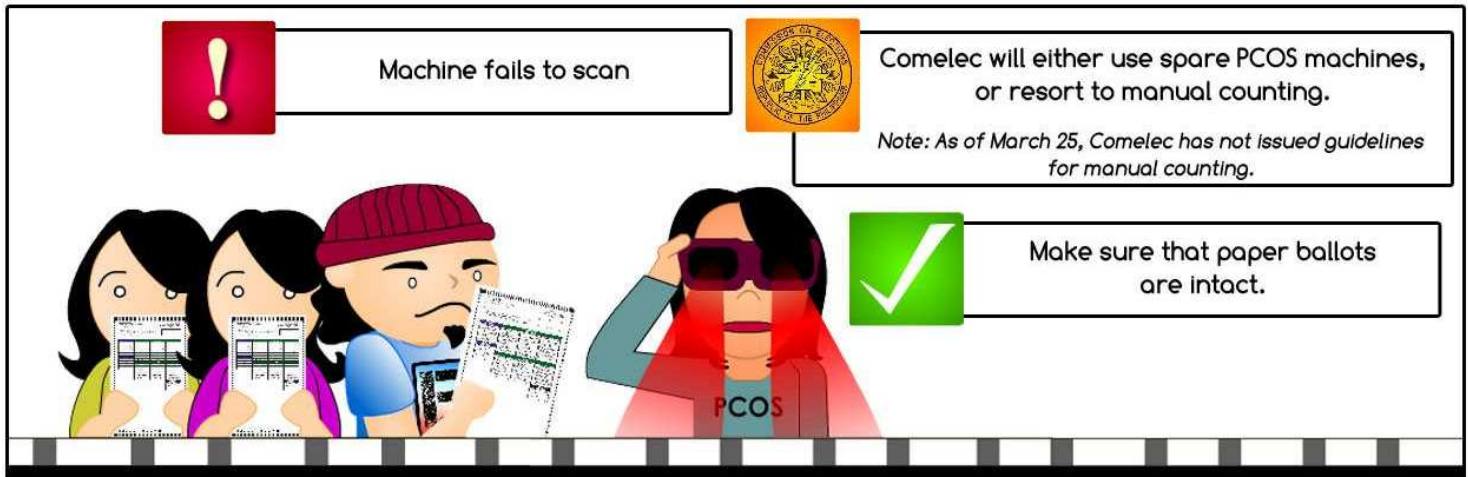
Make sure not to write anything on the security marks.


Shade the ovals fully and select the correct number of candidates per position.


2 PCOS Machine scans the ballot




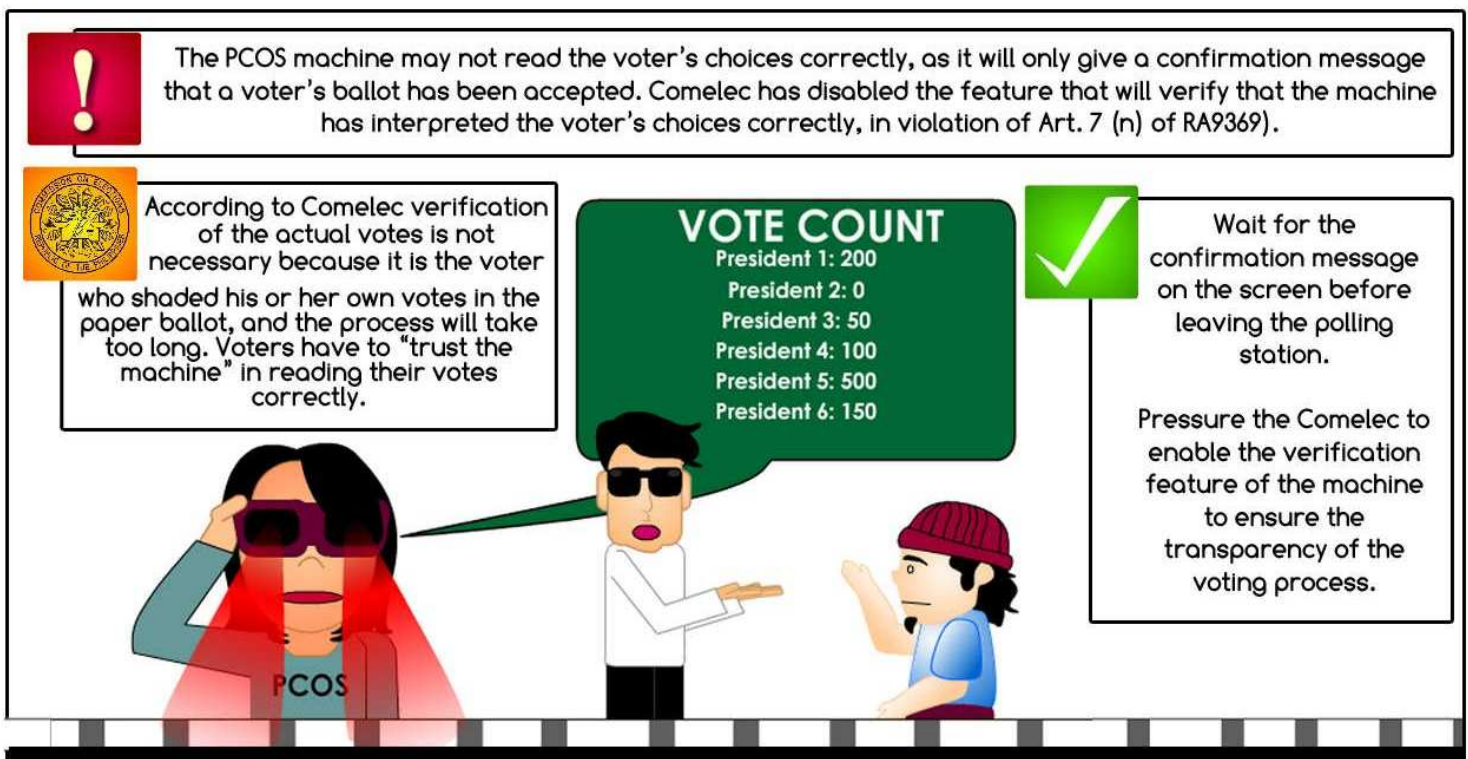
The next task is done by the PCOS machine which looks like this >>> represented here by this avatar.





 Machine fails to scan

 Comelec will either use spare PCOS machines, or resort to manual counting.
Note: As of March 25, Comelec has not issued guidelines for manual counting.


 Make sure that paper ballots are intact.



 The PCOS machine may not read the voter's choices correctly, as it will only give a confirmation message that a voter's ballot has been accepted. Comelec has disabled the feature that will verify that the machine has interpreted the voter's choices correctly, in violation of Art. 7 (n) of RA9369).

 According to Comelec verification of the actual votes is not necessary because it is the voter who shaded his or her own votes in the paper ballot, and the process will take too long. Voters have to "trust the machine" in reading their votes correctly.

VOTE COUNT
President 1: 200
President 2: 0
President 3: 50
President 4: 100
President 5: 500
President 6: 150

 Wait for the confirmation message on the screen before leaving the polling station.
Pressure the Comelec to enable the verification feature of the machine to ensure the transparency of the voting process.

3 Polls are closed to prevent additional ballots from being inserted.



BEI fails to close the polls at the close of the voting period.



Make sure that no other ballots are fed into the machine once voting ends.



If there is 100% voter turnout, the PCOS machine may not be able to hold all 1,000 paper ballots.



Comelec says all ballots will fit into the unit, (although this has not been tested yet).



Make sure that ballots are intact and the PCOS machines are not opened at any time.

4 PCOS automatically starts the counting process.



At the start of election day, the PCOS machine prints a summary showing the total number of votes per candidate instead of a ZERO REPORT.



Each PCOS machine is calibrated two to three days before the elections so there is no way a zero report will not be printed out on election day.



INITIALIZATION REPORT

PCOS Machine Name
Sorsoson City PCOS 1

PCOS ID:
4

Province,
City-Municipality,
Barangay
Sorsoson, Sorsoson City, 001
ABUYOG

Precinct(s)
ABUYOG 0004A, 0005A, 0006A,
0007A, 0008A

No. of Registered
Voters
984

Voters Who Voted : : 0
Valid Ballots Counted : : 0

Ballot ID : 3
Ballots Counted : : 0

President	Count
LACSON, Panfilo M.	0
MACAPAGAL-ARROYO, Gloria M.	0
PDE, Fernando Jr., Ronald Allan	0
ROCO, Raul S.	0
VILLANUEVA, Eduardo C.	0

A zero report is a printout that the PCOS machine will provide at the start of election day. It will show the information recorded on that machine.

If calibrated correctly, a unit should have ZERO votes for all candidates when the zero report is printed out.



If the PCOS machine fails to print a zero report, poll watchers should ask the BEI to request for a spare machine to avoid possible rigging of the ballot.



Miscrediting of marks or erroneous counting



Comelec will do random audits of some precincts by doing manual counting of ballots and tallying of votes to countercheck the results printed and transmitted.
Note: As of March 25, Comelec has not issued guidelines for manual counting.

VOTE COUNT	
President 1	150,000
President 2	300,000
President 3	230,000
President 4	120,000
President 5	40,000
President 6 +	000



ELECTION RETURNS



Read the printed ER posted in the venue to check the voter turnout and number of votes cast in the precinct.

Report any discrepancies to media and poll watchers.



Machine fails to print copies of Election Returns (ER) -

8 copies before transmission and 22 copies afterwards for a total of 30 ER copies.



Follow the BEI to prevent possible CF card switching, and make sure the ERs from your precinct are printed properly.



Images of the scanned ballots and voting results are stored in a compact flash (CF) card fixed in the PCOS unit. The storage device can be removed and the ERs printed in another PCOS.



5 Election officer inserts transmission cable and PCOS performs electronic transmission function of results to the municipal board of canvassers, the central server, and servers for political parties, KBP, and PPCRV.



Machine fails to transmit results due to poor signal.



BEI can change the Sim cards or look for a better satellite signal.

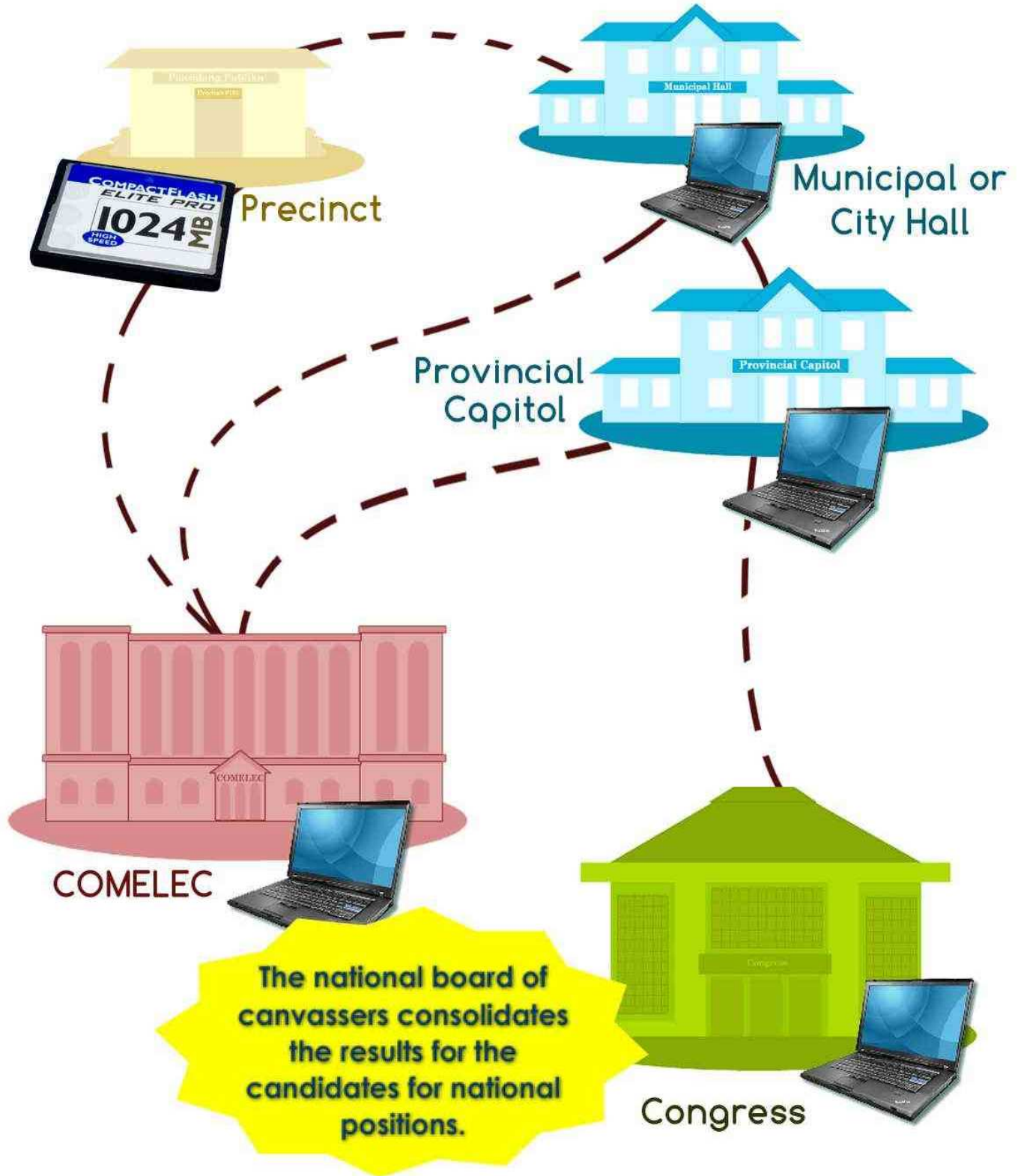
If this fails, BEI can take the storage device of defective PCOS and go to the nearest precinct to transmit the results from a functioning PCOS.



If transmission takes place in another precinct, follow the BEI to prevent possible CF card switching.



PATH OF TRANSMISSION



6 The municipal or city board of canvassers consolidates the results from the precincts using a consolidation/ canvassing system (CCS) server and electronically transmits the certificate of canvass (COC) to the provincial board of canvassers.

CCS also known as REIS
REIS: Real-time electoral information system



Board of canvassers fails to consolidate and print the results due to hardware and software failure.

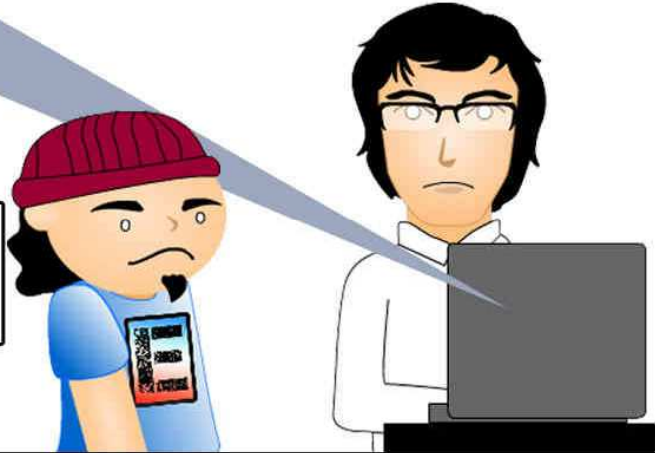


The consolidation/ canvassing system (CCS) of another city or municipality may be used.

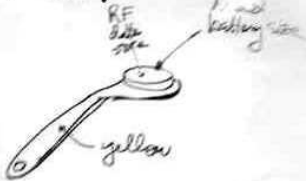
Note: as of March 25, the Comelec has not released the General Instructions (GI) for the CCS.



Monitor the transfer of the canvassing to another location in order to prevent possible anomalies.



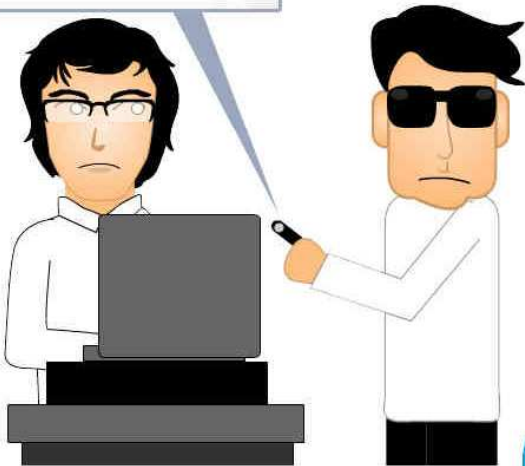
RF key



Secret keys of board of canvassers used for signing Statements of Votes and COCs before these are electronically transmitted may be copied or stolen.




Encryption is secure and the keys are under the control of the Comelec.




Alert the media or poll watchers if there are problems with the transmission of votes.






ELECTION RESULTS


President 1	100,000
President 2	150,000
President 3	320,000
President 4	1,000,000



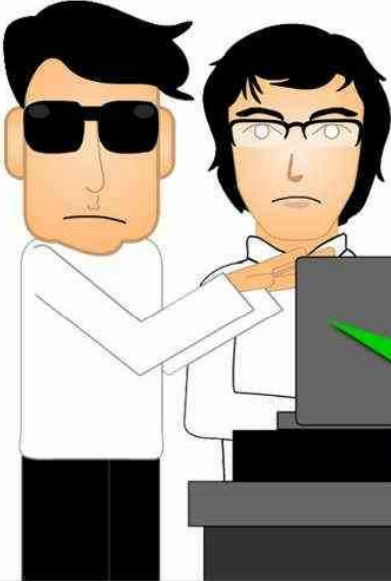
Vote padding may occur if the REIS machines were embedded with a set of instructions containing malicious bugs that can manipulate the counting.



Over one trillion combinations are possible for the security encryption so it is virtually impossible to override the system.



Pressure the Comelec to comply with the legal requirement for a source code review by independent IT experts.




ELECTION RESULTS


President 1	100,000
President 2	150,000
President 3	320,000
President 4	1,000,000

security (128-bit encryption)


- 2^{32} = 137,438,953,472
- 2^{36} = 274,877,906,944
- 2^{37} = 549,755,813,888
- 2^{40} = over One Trillion combinations
- 2^{128} = 340 undecillion, 282 decillion, 365 nonillion, 920 octillion, 938 septillion, 463 sextillion, 463 quintillion, 376 quadrillion, 607 trillion, 431 billion, 768 million, 211 thousand and 456

340,282,366,920,938,463,463
,374,607,431,768,211,456






Voters may question the veracity of the Statement of Votes due to lack of a mechanism for public viewing of the consolidated results.



Arrange with the municipal or city board of canvassers to have an LCD projector attached to the CCS laptop so that the results can be projected onto a screen or wall for public viewing.



VOTE RESULTS

President 1	100,000
President 2	300,000
President 3	150,000
President 4	120,000
President 5	250,000

7 The provincial board of canvassers consolidates the results from cities & municipalities, and transmits the results to the national board of canvassers.



Board of canvassers fails to consolidate results and print 14 copies of COCs due to hardware and software failure.

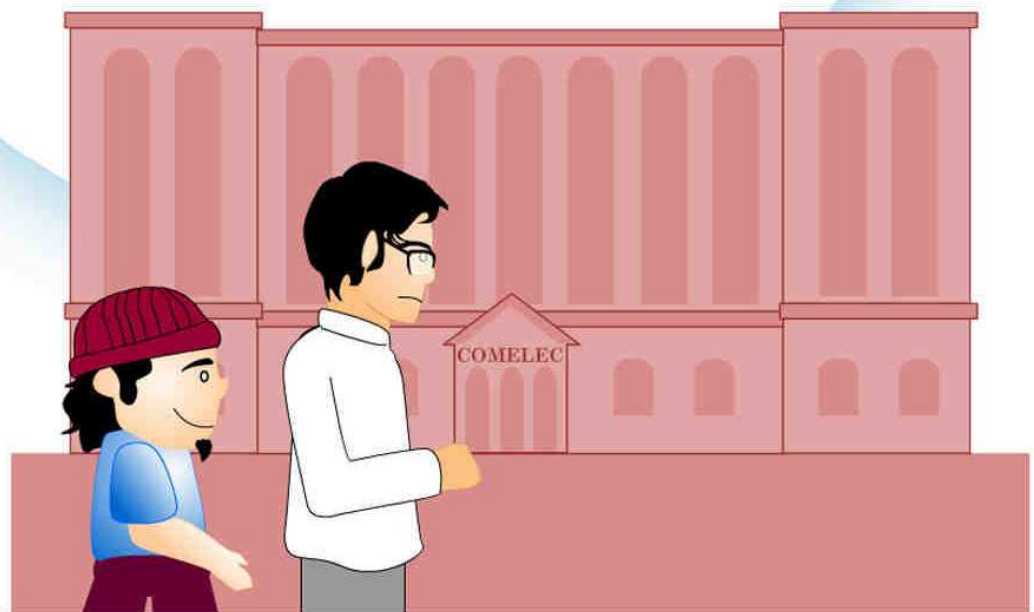


The consolidation / canvassing system (CCS) of another province may be used.

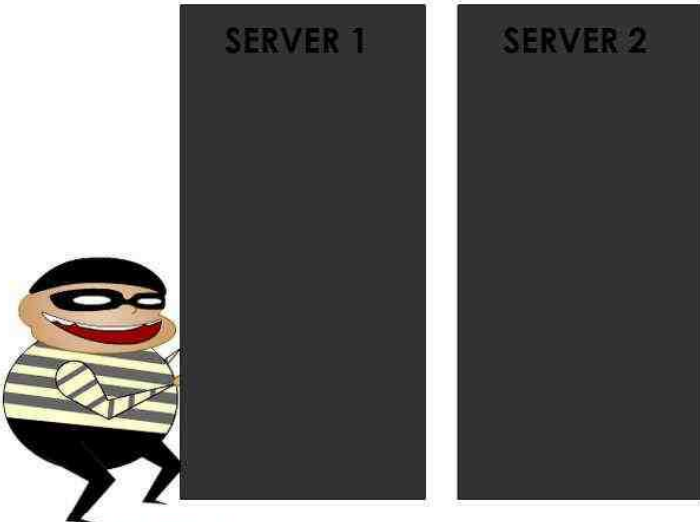
Back-up canvassing may be done using the central Comelec server.



If the results are manually transported to another location, monitor the transfer to make sure the results are transmitted properly.



8 The national board of canvassers consolidates the results for the candidates for national positions.



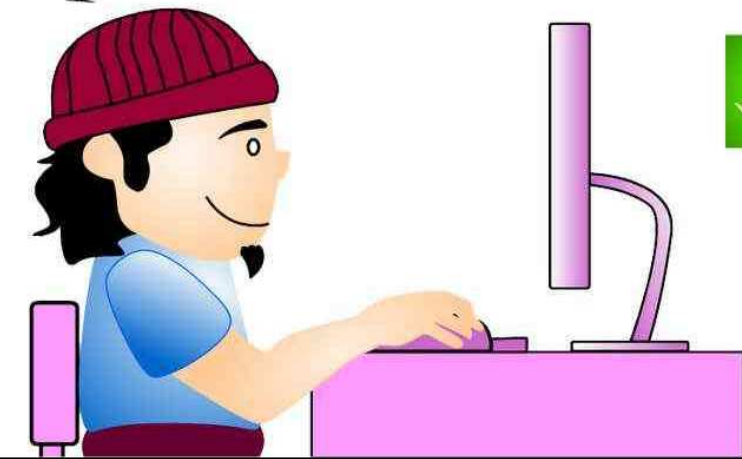
Vote padding may occur during the consolidation of votes due to electronic manipulation of the server.



Comelec central back-up server will post the results on a public website so anybody can verify the votes cast in the elections. The country will find out the results of the presidential race in 36 hours.



Monitor the results and alert the Comelec and the media to any discrepancy.
Pressure the Comelec to comply with the legal requirement for a source code review by independent IT experts.



Comelec proclaims winners for the Senate

Congress proclaims winners for President and Vice President