



## AES Watch

Secretariat: 3/F, College of Social Work and Community Development Building,  
Magsaysay Ave., University of the Philippines, Diliman, Quezon City  
Telefax: 355-4022 / Email: aeswatch2012@gmail.com

AES Watch STAR Card: Background and Narrative  
(Ratings as of Feb. 18, 2013)

### **AES Watch's STAR Card Rating for Comelec's May 2013 Automated Election Preparations: FAILURE**

The STAR Card (System Trustworthiness, Accountability, and Readiness Card) is being issued by AES Watch to comprehensively assess and rate the implementation of the second Automated Election System for the May 13, 2013 mid-term elections by Comelec, Smartmatic-TIM, and other providers. STAR is the framework for assessing the AES' adherence to key technical and management requirements which AES Watch considers as crucial in making the system credible and reliable. These requirements were based mainly on the amended election automation law (RA 9369) and related laws, RfP 2010, and the Comelec calendar of activities. They were also grounded on established standards and best practices for system implementation.

This is the second STAR Card rating to be issued by AES Watch. The first rating was made during the May 2010 first nationwide automated elections with three releases from late 2009 to April 2010.

The second STAR Card lists 27 items of concerns guided by the following key requirements: 1) System set-up (will the AES be ready for full implementation?); 2) Internal security (will the AES have the necessary safeguards to prevent fraud?); 3) Personnel training and voters' education (will the teachers and the voters know exactly what to do on election day?); and 4) Contingency planning (will Comelec and other involved personnel know what to do when things go wrong?)

The items of concerns were rated as: PASS (4 points), QUALIFIED PASS (3), WARNING (2); DANGER (1); and FAIL (0).

As in the 2009-2010 ratings, AES Watch convened a committee to conduct the assessment and come up with the appropriate ratings. This STAR Card committee is composed of IT practitioners (experts and specialists in programming, security) coming from the multi-disciplinary fields of IT, mathematics, business management, public administration, and social sciences. From 2009 to the present, they were involved in the monitoring of AES preparations and implementation; in engagements with Comelec and other election stakeholders, such as state agencies, Congress, political parties, election watchdogs, academe, and media. They were also involved in the publication of assessment reports on the May 2010 automated elections, not only under AES Watch but also under the organizations, institutions, and academic groups they represent.

The AES Watch committee also took note of key AES-related developments that transpired from the May 2010 elections to the present, including: 1) the downgrading of Comelec's success rate of the 2010 elections from "resounding success" to "qualified success"; 2) admissions by both Smartmatic-TIM (in late 2011 and early 2012) and Comelec of programming errors in the May 2010 system; 3) the "option-to-purchase" exercised by Comelec on the Smartmatic PCOS machines (despite CAC contrary recommendations), which contract was signed on March 30, 2012, followed by the filing of a TRO in April, 2012 by AES Watch individual members with two other groups of petitioners; 4) the July 24-25, 2012 mock elections at the lower House that revealed a 97% accuracy rating of the Smartmatic system (versus the required 99.995% rating) and the Feb. 2, 2013 mock elections which was attended by machine breakdowns, paper jams, delayed transmissions, and other glitches; 5) the termination of the 2009 licensing agreement by the real owner of the election technology, Dominion Voting Systems, on May 23, 2012 and the lawsuit filed by Smartmatic against Dominion on Sept. 11, the same year; 6) the refusal by the Dominion to allow the U.S.-based SLI to issue a certification on the election system to be used for the May 2013 elections; and 7) the latest announcement by Comelec not to comply with the election law requirement of source code review.

... includes University of the Philippines Alumni Association (UPAA), National Secretariat for Social Action-Catholic Bishop Conference of the Philippines (CBCP), Bishop Broderick Pabillo and Bishop Deogracias Yniguez of the Commission on Public Affairs of the CBCP, Center for People Empowerment in Governance (CenPEG), Ecumenical Bishops Forum, National Council of Churches in the Philippines (NCCP), Dr. Rachel Roxas-Uy, dean of the De La Salle University- College of Computer Science (DLSU-CCS), Dr. Reena Estuar, chair of the Ateneo de Manila University- Department of Information Communications System, Dr. Jaime Caro, chair of the UP Department of Computer Science, CAUCUS- Philippine Computer Society, Association of Major Religious Superiors in the Philippines (AMRSP), Computer Professionals Union (CPU), Solidarity Philippines, Philippine Computer Emergency Response Team (PhCERT), National Union of Students in the Philippines (NUSP), Engr. Rodolfo Lozada, Dilaab-Hearts Foundation, Senior Catholic Citizens Organization, Coordinating Council for People's Development and Governance (CPDG), Health Alliance for Democracy (HEAD), Transparent Elections.org, Concerned Citizens' Movement (CCM), Sisters Association in Mindanao (SAMIN), Association of Schools of Public Administration of the Philippines (ASPAP), Computing Society of the Philippines (CSP), Transparency International-Philippines, Pagbabago (Movement for Social Change), Movement for Good Governance (MGG), Atyansa Agrikultura, Philippine Computer Society Foundation, Atty. Al, Vitangcol, Former Vice President Teofisto Guingona, Jr. and others.



## AES Watch

Secretariat: 3/F, College of Social Work and Community Development Building,  
Magsaysay Ave., University of the Philippines, Diliman, Quezon City  
Telefax: 355-4022 / Email: aeswatch2012@gmail.com

The following are the STAR Card ratings, as of Feb. 18, 2013:

Key Requirements	Specific Concerns	Rating
<b>A. Trustworthiness</b>	<p>1) Source Code Review</p> <p>The source code for the automated election system is a set of instructions prepared by computer programmers that will dictate how:</p> <ol style="list-style-type: none"> <li>The Election Management System (EMS) will be used to prepare the ballots and configure the PCOS machine for each precinct.</li> <li>The Precinct Count Optial Scan (PCOS) machines will interpret vote marks on the ballot, count the votes, prepare the election returns, and transmit the election returns to the canvassing and consolidation system</li> <li>The Canvassing and Consolidation System (CCS) at each level (city/municipal, provincial, district, and national) will consolidate the votes from the polling precincts.</li> </ol> <p>Republic Act 9369 or the Election Automation Law that Technical Evaluation Committee (TEC) to certify through an international certification entity will operate properly, securely, and accurately.</p> <p>RA9369 also gave the right to interested political parties and groups to review the source code of the automated election system.</p> <p>To date, COMELEC through Chairman SixtoBrillantes has not disclosed any report of the source code review done by SLI Global Solutions claiming that there has been no certification. The Smartmatic-TIM, the supplier of the AES, on the other hand, claims that the AES software has been certified. Certainly conflicting claims.</p> <p>To date, also, no interested polical party or group has been given the opportunity to review the source code. In fact, last January 2013 the LDP (Sen. Koko Pimentel's Party) was denied review of the source code with the COMELEC claiming that the source code was not yet ready.</p>	0
	<p>2) CF Cards should be write-once-read-many or WORM (priority)</p> <p>The CF card used in the 2010 NLE and will be used in the coming midterm elections is not write-once-read-many or WORM. A WORM storage device was required under the Request for Proposal for the 2010 NLE and was not complied with.</p>	0
	<p>3) Fake ballot detection (priority)</p> <p>The Ultraviolet Ink Mark is a security feature offered by Smartmatic-TIM. The Ultraviolet Ink Detection mechanism in the PCOS was disabled in 2010. No proof has been shown to date that this mechanism has been enabled and operates correctly.</p>	0
	<p>4) Voter-Verified Paper Audit Trail (priority)</p> <p>The Voter-Verified Paper Audit Trail (VVPAT) is required under RA9369. This feature, claimed to be available in the PCOS, was not enabled in the 2010 NLE. No proof has been shown to date that this feature has been enabled for the 2013 Midterm Elections.</p>	0
	<p>5) Initialization of Machines (priority)</p> <p>In the Mock Elections held on Feb.2, 2013, problems were encountered as the Board of Election Inspectors (BEI) had difficulty starting up the PCOS machines. The PCOS machines and all other machines that comprise the AES need to be thoroughly tested. To date, COMELEC has not disclosed if all machine components of the AES have been tested individually.</p>	1

... includes University of the Philippines Alumni Association (UPAA), National Secretariat for Social Action-Catholic Bishop Conference of the Philippines (CBCP), Bishop Broderick Pabillo and Bishop Deogracias Ynguez of the Commission on Public Affairs of the CBCP, Center for People Empowerment in Governance (CenPEG), Ecumenical Bishops Forum, National Council of Churches in the Philippines (NCCP), Dr. Rachel Roxas-Uy, dean of the De La Salle University- College of Computer Science (DLSU-CCS), Dr. Reena Estuar, chair of the Ateneo de Manila University- Department of Information Communications System, Dr. Jaime Caro, chair of the UP Department of Computer Science, CAUCUS- Philippine Computer Society, Association of Major Religious Superiors in the Philippines (AMRSP), Computer Professionals Union(CPU), Solidarity Philippines, Philippine Computer Emergency Response Team (PhCERT), National Union of Students in the Philippines (NUSP), Engr. Rodolfo Lozada, Dilaab-Hearts Foundation, Senior Catholic Citizens Organization, Coordinating Council for People's Development and Governance (CPDG), Health Alliance for Democracy (HEAD), Transparent Elections.org, Concerned Citizens' Movement (CCM), Sisters Association in Mindanao (SAMIN), Association of Schools of Public Administration of the Philippines (ASPAP), Computing Society of the Philippines (CSP), Transparency International-Philippines, Pagbabago (Movement for Social Change), Movement for Good Governance (MGG), Aiyansa Agrikultura, Philippine Computer Society Foundation, Atty. Al, Vitangcol, Former Vice President Teofisto Guingona, Jr. and others.



## AES Watch

Secretariat: 3/F, College of Social Work and Community Development Building,  
Magsaysay Ave., University of the Philippines, Diliman, Quezon City  
Telefax: 355-4022 / Email: aeswatch2012@gmail.com

	<p>6) 99.995% accuracy (priority)</p> <p>The AES accuracy rate of 99.995% is a requirement under the Request for Proposal for the 2010 NLE. The same system will be used for the 2013 Midterm Elections. Results of the mock elections conducted last July 24-24, 2012 before the Committee on Suffrage and Electoral Reforms, House of Representatives and last February 2, 2013 in voting centers in ten cities/municipalities, show less than 99.995% accuracy.</p>	0
	<p>7) Integrity / consistency of databases (priority)</p> <p>No demonstration has been done to show integrity and consistency between and among the canvassing and consolidation system machines across the hierarchy of the AES.</p>	0
	<p>8) Secured Electronic Transmission (priority)</p> <p>The COMELEC claims that a virtual private network (VPN) will be used for the 2013 Midterm Elections. The use of the VPN has not been demonstrated. VPN was not used in the mock elections conducted last February 2, 2013.</p> <p>RA9369 requires that the election reports (election returns and certificates of canvass) be digitally signed as a security measure. The election reports in 2010NLE were not digitally signed. In fact, the Forensics Team that examined the PCOS after the elections did not find any evidence of digital signing in the PCOS machines. To date, while COMELEC claims that digital signing will be implemented, digital signing of election reports have not been demonstrated.</p>	0
	<p>9) DOST-certified PCOS, CCS, EMS &amp; SET; End-to-End Test Certification / AES technology (priority)</p> <p>To date, the TEC has not certified that the AES will operate properly, securely, and accurately.</p>	0
	<p>10) Field Testing &amp; Mock Elections (priority)</p> <p>The COMELEC rescinded its invitation to media and election watch groups to observe the the field testing conducted last January 26, 2013 which the COMELEC declared to be a success. The field testing would have served as practice for COMELEC and Smartmatic-TIM for the mock elections held last February 2, 2013. While COMELEC declared the mock elections a success, it was marred with problems of ballot rejections, ballot jamming, inability to feed the ballot, inability to start up the PCOS machines, transmission failures, and a host of operation problems, including problems with crowd control and voters having difficulty to find their names on the voters lists.</p>	1
	<p>11) Final Testing and Sealing (priority/<u>guidelines</u>) =</p> <p>Election procedures dictate, as announced by COMELEC, that a Final Testing and Sealing (FTS) activity will be conducted one week before the elections. This is another activity that needs close monitoring since the FTS in the 2010 NLE which resulted in the CF Card fiasco was a failure.</p>	0
	<p>12) Availability of Transmission Facilities (with GIS) =</p> <p>As experienced in the mock elections held last February 2, 2013 there was difficulty in transmitting the election results to the CCS at the city/municipal level. There has been no disclosure if proper inventory of the availability of transmission facilities nationwide has been done.</p>	0

... includes University of the Philippines Alumni Association (UPAA), National Secretariat for Social Action-Catholic Bishop Conference of the Philippines (CBCP), Bishop Broderick Pabillo and Bishop Deogracias Yniguez of the Commission on Public Affairs of the CBCP, Center for People Empowerment in Governance (CenPEG), Ecumenical Bishops Forum, National Council of Churches in the Philippines (NCCP), Dr. Rachel Roxas-Uy, dean of the De La Salle University- College of Computer Science (DLSU-CCS), Dr. Reena Estuar, chair of the Ateneo de Manila University- Department of Information Communications System, Dr. Jaime Caro, chair of the UP Department of Computer Science, CAUCUS- Philippine Computer Society, Association of Major Religious Superiors in the Philippines (AMRSP), Computer Professionals Union(CPU), Solidarity Philippines, Philippine Computer Emergency Response Team (PhCERT), National Union of Students in the Philippines (NUSP), Engr. Rodolfo Lozada, Dilaab-Hearts Foundation, Senior Catholic Citizens Organization, Coordinating Council for People's Development and Governance (CPDG), Health Alliance for Democracy (HEAD), Transparent Elections.org, Concerned Citizens' Movement (CCM), Sisters Association in Mindanao (SAMIN), Association of Schools of Public Administration of the Philippines (ASPAP), Computing Society of the Philippines (CSP), Transparency International-Philippines, Pagbabago (Movement for Social Change), Movement for Good Governance (MGG), Atyansa Agrikultura, Philippine Computer Society Foundation, Atty. Al, Vitangcol, Former Vice President Teofisto Guingona, Jr. and others.



# AES Watch

Secretariat: 3/F, College of Social Work and Community Development Building,  
Magsaysay Ave., University of the Philippines, Diliman, Quezon City  
Telefax: 355-4022 / Email: aeswatch2012@gmail.com

<p><b>B. Accountability</b></p>	<p>13) Delaware case (impact) (priority)</p> <p>The dispute between Smartmatic and Dominion Voting Systems, the owner of the technology used in the PCOS started soon after the 2010NLE. On May 23, 2012 Dominion terminated its License Agreement with Smartmatic. Smartmatic is no longer authorized to sell or use the Dominion technology. In effect, Smartmatic is supplying COMELEC with unlicensed technology and the nation will be using an unlicensed technology for the 2013 Midterm Elections.</p>	<p>0</p>
	<p>14) Adequate general instruction</p> <p>In the 2010 NLE, COMELEC issued its general instructions for the Board of Election Inspectors and the Board of Canvassers quite late. To date, no such general instructions have been released.</p>	<p>0</p>
	<p>15) Random Manual Audit of vote counts</p> <p>Random manual audit of selected PCOS machines in is required to be conducted under RA9369. While election watch organizations have been accredited by COMELEC to conduct the RMA, nothing has been disclosed as to its preparations, including the preparation of procedures on how the RMA will be conducted.</p>	<p>1</p>
	<p>16) Physical security of machines</p> <p>Physical security of the machines starts from the time the PCOS machines and CCS machines are released from the COMELEC-Smartmatic warehouse for delivery to the polling precincts and canvassing centers and continues until said machines are retrieved and returned to the warehouse. To date, there has been no disclosure by COMELEC on how the machines will be secured while in transit and while they are at the polling or canvassing centers.</p>	<p>1</p>
	<p>17) Source Code in escrow with BSP (priority)</p> <p>The deposit of the source code for the 2010NLE was attended by much fanfare. To date, there has been no such activity.</p>	<p>0</p>
	<p>18) Electoral protest mechanism</p> <p>No Election Dispute Resolution guidelines have been issued by the COMELEC to date.</p>	<p>0</p>
<p><b>C. Readiness</b></p>	<p>19) Precinct assignment of voters</p> <p>Confusion as to precinct assignments attended the mock elections conducted last February 2, 2013. If COMELEC is not ready with the voters list, the same confusion will confront voters on May 13, 2013.</p>	<p>2</p>
	<p>20) Continuity Plan – TEC (priority)</p> <p>RA9369 mandates that a continuity plan be prepared by the TEC. No disclosure to date has been made if such a continuity plan has been prepared or is being prepared.</p>	<p>0</p>
	<p>21) Continuity Plan – stakeholders (priority)</p> <p>RA9369 mandates that copies of the Continuity Plan be released to political parties within three months before the elections. No information has been released if such Continuity Plan will be released on time.</p>	<p>0</p>
	<p>22) Precinct specific ballots</p> <p>Ballots are being printed and the COMELEC has reported that the ballots undergo testing with the PCOS machines. Yet, ballot rejection and jamming were reported and observed during the mock elections held last February 2, 2013. Questions as to the ballot paper quality have been raised. No resolution has been disclosed to date.</p>	<p>2</p>

... includes University of the Philippines Alumni Association (UPAA), National Secretariat for Social Action-Catholic Bishop Conference of the Philippines (CBCP), Bishop Broderick Pabillo and Bishop Deogracias Yniguez of the Commission on Public Affairs of the CBCP, Center for People Empowerment in Governance (CenPEG), Ecumenical Bishops Forum, National Council of Churches in the Philippines (NCCP), Dr. Rachel Roxas-Uy, dean of the De La Salle University- College of Computer Science (DLSU-CCS), Dr. Reena Estuar, chair of the Ateneo de Manila University- Department of Information Communications System, Dr. Jaime Caro, chair of the UP Department of Computer Science, CAUCUS- Philippine Computer Society, Association of Major Religious Superiors in the Philippines (AMRSP), Computer Professionals Union(CPU), Solidarity Philippines, Philippine Computer Emergency Response Team (PhCERT), National Union of Students in the Philippines (NUSP), Engr. Rodolfo Lozada, Dilaab-Hearts Foundation, Senior Catholic Citizens Organization, Coordinating Council for People's Development and Governance (CPDG), Health Alliance for Democracy (HEAD), Transparent Elections.org, Concerned Citizens' Movement (CCM), Sisters Association in Mindanao (SAMIN), Association of Schools of Public Administration of the Philippines (ASPAP), Computing Society of the Philippines (CSP), Transparency International-Philippines, Pagbabago (Movement for Social Change), Movement for Good Governance (MGG), Atyansa Agrikultura, Philippine Computer Society Foundation, Atty. Al, Vitangcol, Former Vice President Teofisto Guingona, Jr. and others.



# AES Watch

Secretariat: 3/F, College of Social Work and Community Development Building,  
Magsaysay Ave., University of the Philippines, Diliman, Quezon City  
Telefax: 355-4022 / Email: aeswatch2012@gmail.com

	23) Stakeholders education & training No schedules have been announced.	0
	24) Training of election personnel (priority) No schedules have been announced.	0
	25) Resource inventory at voting centers = COMELEC has not disclosed if proper inventory of resources at the voting centers, including transmission facilities, has been done.	0
	26) Deployment of machines = No schedules have been disclosed.	0
	27) Alternative election system The Chairman himself has announced the possibility of reverting to manual elections	0

**AVERAGE**

**0.29**



... includes University of the Philippines Alumni Association (UPAA), National Secretariat for Social Action-Catholic Bishop Conference of the Philippines (CBCP), Bishop Broderick Pabillo and Bishop Deogracias Yniguez of the Commission on Public Affairs of the CBCP, Center for People Empowerment in Governance (CenPEG), Ecumenical Bishops Forum, National Council of Churches in the Philippines (NCCP), Dr. Rachel Roxas-Uy, dean of the De La Salle University- College of Computer Science (DLSU-CCS), Dr. Reena Estuar, chair of the Ateneo de Manila University- Department of Information Communications System, Dr. Jaime Caro, chair of the UP Department of Computer Science, CAUCUS- Philippine Computer Society, Association of Major Religious Superiors in the Philippines (AMRSP), Computer Professionals Union(CPU), Solidarity Philippines, Philippine Computer Emergency Response Team (PhCERT), National Union of Students in the Philippines (NUSP), Engr. Rodolfo Lozada, Dilaab-Hearts Foundation, Senior Catholic Citizens Organization, Coordinating Council for People's Development and Governance (CPDG), Health Alliance for Democracy (HEAD), Transparent Elections.org, Concerned Citizens' Movement (CCM), Sisters Association in Mindanao (SAMIN), Association of Schools of Public Administration of the Philippines (ASPAP), Computing Society of the Philippines (CSP), Transparency International-Philippines, Pagbabago (Movement for Social Change), Movement for Good Governance (MGG), Alyansa Agrikultura, Philippine Computer Society Foundation, Atty. Al, Vitangcol, Former Vice President Teofisto Guingona, Jr. and others.