

STATE OF CALIFORNIA  
SECRETARY OF STATE  
OFFICE OF VOTING SYSTEMS TECHNOLOGY ASSESSMENT

PUBLIC HEARING ON REQUEST FOR APPROVAL OF A VOTING SYSTEM  
THE COUNTY OF LOS ANGELES' VOTING SOLUTIONS FOR ALL PEOPLE  
(VSAP) TALLY 1.0 VOTING SYSTEM

CALIFORNIA SECRETARY OF STATE OFFICE BUILDING  
1ST FLOOR AUDITORIUM  
1500 11TH STREET  
SACRAMENTO, CA 95814

MONDAY, JULY 30, 2018

9:00 A.M.

Reported by:

Peter Petty

APPEARANCES

SECRETARY OF STATE STAFF:

Susan Lapsley, Administration

NaKesha Robinson, OVSTA

Todd Ross, OVSTA

CONTRACTORS/CONSULTANTS:

Michael Santos, SLI Compliance

PUBLIC COMMENT:

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P R O C E E D I N G S

9:06 a.m.

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2  
3 MS. LAPSLEY: Good morning, everyone. I'm Susan  
4 Lapsley. I'm Deputy Secretary of State for the California  
5 Secretary of State's Office. On the stage we have Todd  
6 Ross, Mike Santos and NaKeshia Robinson. Todd and NaKeshia  
7 are with the Secretary of State's Office, and in  
8 particular, the Office of Voting Systems Technology  
9 Assessment and Mike is with SLI, Inc. Inc?

10 MR. SANTOS: Compliance.

11 MS. LAPSLEY: Compliance, there we go.

12 Today we are going to have a public hearing on  
13 the County of Los Angeles's VSAP Tally 1.0. You will hear  
14 a Staff Report and then we will go into a Consultant's  
15 Report and then the County of Los Angeles will have an  
16 opportunity to give a response if they desire, to any of  
17 the items that were presented in either of those reports.

18 After that we will open it up to public comment.

19 We're going to go over some ground rules here  
20 first. There is no food or drink in the auditorium other  
21 than water. And today, as I said we will be hearing about  
22 the County of Los Angeles VSAP Tally 1.0 and taking public  
23 comment on it.

24 The staff reports and consultant's reports and

1 the use procedures are available on our website. You can  
2 also contact the Secretary of State staff, anyone up here,  
3 to get any of this information if you would like.

4 For those that would like to speak, they must  
5 complete a speaker's card, which is at the back of the  
6 room. Speaking time will be limited to three minutes. The  
7 timekeeper, which is Rodney back there in the back, will  
8 advise when 2:30 seconds has elapsed and then again, when 3  
9 minutes has elapsed. A speaker may use additional time  
10 that has been ceded to them by a maximum of two other  
11 people who have signed a speaker card request.

12 Please note that we have a court stenographer  
13 here taking a transcription of this meeting. This means  
14 that if you speak, your name and your comments will be part  
15 of the public record. They will post it on our Internet  
16 website, so please state your name clearly for the  
17 stenographer prior to beginning.

18 Also, the public hearing is being videotaped,  
19 which will also be a part of the public record.

20 For written comments on the agenda item can be  
21 submitted via email to [votingsystem@sos.ca.gov](mailto:votingsystem@sos.ca.gov) or by mail  
22 to the Secretary of State's Office attention Voting Systems  
23 Comment 1500 11th Street, 6th Floor, Sacramento, California  
24 95814.

25 Any written comments submitted to the Secretary

1 of State also become part of the public record.

2 So with that, we'll go ahead and turn it over to  
3 NaKasha to do the Staff Report.

4 MS. ROBINSON: The Staff Report presents the test  
5 results for all phases of testing of the Certification Test  
6 of the County of Los Angeles's VSAP Tally or Voting  
7 Solutions for All People 1.0 Voting System.

8 The purpose of the testing is to test the  
9 compliance of the voting system with California and federal  
10 laws including the California Voting System Standards or  
11 CVSS. Testing also uncovers other findings, which do not  
12 constitute noncompliance and those findings are reported to  
13 the voting system vendor to address the issues  
14 procedurally.

15 The procedures for mitigating any additional  
16 findings are made to the documentation, specifically the  
17 County of Los Angeles use procedures.

18 The County of Los Angeles submitted an  
19 application for the VSAP Tally 1.0 Central Tabulation  
20 System on September 19th, 2017. The system is comprised of  
21 the following major components: Voting Solutions for All  
22 People, VSAP Tally Software Version 1.1.2.2 and an IBML  
23 Image Track Scanner Version 6400.

24 In addition to these two components, which  
25 includes the executable code and a source code the County

1 of Los Angeles was required to submit the following. The  
2 Tactical Data Package or the TDP, all the hardware  
3 components too including all peripheral devices needed for  
4 the functional test phase and the security and  
5 telecommunications testing phases in addition to the VSAP  
6 Tally Blended Use Procedures. The VSAP Tally 1.0 solution  
7 is solely used for scanning and tabulating vote by mail  
8 ballots.

9           The system will be used in a blended environment  
10 with the County of Los Angeles's legacy system  
11 Microcomputer Tally System or MTS Version 1.3.1 using  
12 InkaVote ballots, which tabulate precinct ballots.

13           Upon receipt of a complete application the  
14 Secretary of State released a Request for Quote or an RFQ  
15 for assistance with the software testing, Source Code  
16 Review and security and telecommunications testing.  
17 Through the formal California contracting process the  
18 Secretary of State awarded a contract to SLI Compliance or  
19 SLI, a division of Gaming Laboratories International, LLC.

20           Functional and volume testing of the system was  
21 conducted by Secretary of State staff in Norwalk,  
22 California from May 23rd to May 25th, 2018. The  
23 configuration of the equipment including a build from the  
24 ground up was witnessed by Secretary of State staff on May  
25 23rd using the configuration procedures provided by the

1 County of Los Angeles.

2 Software testing or the Source Code Review was  
3 performed by SLI Compliance from June 11th to July 12th,  
4 2018. Security and telecommunications testing was  
5 performed in Norwalk, California from July 2nd to July 3rd.  
6 Mike Santos of SLI will present the findings of those  
7 phases of testing later.

8 So summary of the Functional Test, preparation  
9 for functional testing and all subsequent testing began on  
10 May 23rd. The system is self-contained on an air-gapped  
11 network, per the CVSS requirements. Secretary of State  
12 staff witnessed the build of the test environment utilizing  
13 the vendor provided use procedures, which included  
14 installation of the operating system, commercial-off-the-  
15 shelf software, tabulation software, and hardening of the  
16 system.

17 There was some documentations noted by Secretary  
18 of State staff and subsequently the County of Los Angeles  
19 made those modifications.

20 During functional testing, there was one  
21 particular anomaly to report during testing of the election  
22 type Primary-Countywide Vote Center Model. The reports  
23 displayed in Treasurer Contest came out as of 2 out of 4  
24 instead of 4 out of 4. In addition, there was a Ballot Out  
25 Stack error where the Superintendent of Education and

1 Measure I, with those two contests, one ballot had debris  
2 that cannot be seen with the naked eye, but the scanner  
3 picked it up with a valid count.

4           The resolution to that anomaly was sensitivity  
5 settings were adjusted in the configuration file. And  
6 subsequently we ran the ballot five additional times, just  
7 to make sure it came out clear after making that  
8 adjustment.

9           The Volume Test, the Volume Test simulates  
10 conditions in which the system components would be used on  
11 Election Day. Volume testing of the VSAP Tally system took  
12 place in Los Angeles County on May 24, 2018. Test ballots  
13 from the California 2014 General Election were scanned for  
14 over seven hours. The use of this election required an  
15 edit of the configuration file within the Tally system.

16           And the results of that testing, on 11 different  
17 instances, 10 in particular with the IBML Scanner we  
18 received gap violations, which is essentially the scanner  
19 is sensitive to the amount of space in between two ballots  
20 in the feeder. The mitigation to this error is the use  
21 procedures and operator cards at the scanner will remind  
22 operators of the scanner that adequate spacing between the  
23 ballots is necessary in placing them into the feeder.

24           The second error to note only occurred once and  
25 that was the double feed error where two ballots were stuck



1 together. IBML suggested that adjustments be made to the  
2 scanner to alleviate gap and double feed errors. Those  
3 suggestions were incorporated into the daily maintenance  
4 routine where Los Angeles County operators will follow  
5 during the tally process. Additionally, operators will  
6 also be advised to use a ballot jogger. And these  
7 instructions will also be incorporated in to the use  
8 procedures.

9           The next error was a "document too long error"  
10 and this required that a ballot be pulled off the track and  
11 delicately hand fed into the scanner.

12           And lastly, a ballot out stack, which occurred  
13 because there was a slight fold in the corner of the ballot  
14 covering the registration mark. And additionally, the use  
15 procedures were modified to remind operators to make sure  
16 the ballots are all folded out accordingly.

17           And that concludes the Staff Report. Thank you.

18           MR. SANTOS: Good morning, I am Michael Santos  
19 from SLI Compliance. We were tasked by the State of  
20 California to review the VSAP Tally application with two  
21 main priorities: one being a Security Review and the other  
22 one being a Source Code Review.

23           The VSAP Tally System is an air gapped system  
24 consisting of a central high-speed optical scan ballot  
25 counter and tabulator and is used for processing ballots.

1           This ballot counter unit is based on commercial  
2 off-the-shelf hardware coupled with custom-made ballot  
3 processing application software.

4           First, I'm going to go ahead and speak to the  
5 security. It was actually security in telecommunications.  
6 We looked at the system from a security point of view in  
7 four main areas. One of them was documentation review, the  
8 other was functional security testing. We also looked at  
9 it in telecommunications and data transmission testing and  
10 well as performing an onsite review at L.A. County.

11           The testing approach that was implemented against  
12 the system followed the California Voting System Standards.  
13 We looked at the system in two areas. One was what we  
14 describe as discrepancies, which would be considered  
15 against potentially a CVSS requirement. But we also looked  
16 at the system in terms of vulnerabilities or potential  
17 vulnerabilities.

18           It's important to note that the system is an air  
19 gapped solution, which we'll speak to a little bit more.  
20 In reviewing the system there were five minor findings  
21 located within the security documentation review portion  
22 that dealt primarily with some of the documentation being  
23 somewhat vague or partially missing some of the  
24 documentation.

25           Within the Documentation Review there were no

1 vulnerabilities discovered or determined. Three findings  
2 were written during the telecommunications and data  
3 transmission testing portion of the system with the impact  
4 being determined to be minimal, again due to the air gap  
5 nature of the system.

6           From a security point of view, there were no  
7 actual discrepancies determined within the system.

8           During the Vulnerability Review, 58  
9 vulnerabilities were located, 6 of them being determined to  
10 be of medium severity dealing primarily with certificates  
11 and signing of different data aspects. Two were determined  
12 to be low-severity vulnerabilities that deal with cipher  
13 suites being enabled or supported. There were 50  
14 informational severity vulnerabilities. These  
15 vulnerabilities are of an informational nature and include  
16 reconnaissance information that helps to identify the  
17 system including open ports, operating system type and  
18 version and surfaces detected.

19           The vulnerabilities explored and detected are  
20 believed to be negligible and have little or no impact on  
21 the overall security of the system. Again, because this is  
22 an air gapped system a lot of these vulnerabilities are  
23 looked at from a security point of view, are negligible due  
24 to the system being isolated.

25           During the Onsite Security Review there were

1 three findings and two observations were located against  
2 the Tally system. The impact to the overall security  
3 posture of the solution as a whole was determined to be  
4 minimal. The vulnerabilities explored and detected are  
5 believed to be negligible and have little or no impact on  
6 the overall security of the system was the conclusion  
7 determined by our security analyst who performed the  
8 testing on this system.

9           So that kind of covers the security portion of  
10 the VSAP Tally.

11           In terms of Source Code Review the VSAP Tally  
12 system includes proprietary software and firmware. The  
13 system was tested against applicable CVSS requirements. In  
14 part, this included a custom review of sorts against the  
15 programming language that's being implemented by the Tally  
16 system. So in addition to the CVSS requirements, we also  
17 reviewed the Source Code against the GO programming  
18 language specification as well as the effective GO  
19 specification.

20           And in terms of Source Code Review, no  
21 discrepancy findings were determined nor were any  
22 vulnerabilities identified within the code base.

23           So this concludes the Security and the Source  
24 Code Review for SLI Compliance. Thank you.

25           MS. LAPSLEY: Thank you, NaKasha, and thank you,

1 Mike.

2 So Los Angeles County, would you like to address  
3 any of the issues in the reports? If you do, please step  
4 up to the microphone over there, state your name clearly  
5 for the stenographer and for those that are present.

6 Is that a no? All right.

7 We also do not have anyone here for public  
8 comment, so after having given the Staff Report and the  
9 Consultant's Report and Los Angeles County not wanting or  
10 needing to provide any additional information we'll go  
11 ahead and close the public hearing.

12 Thank you everyone for coming and for your time  
13 today. We appreciate it.

14 (Whereupon, the Public Hearing was adjourned  
15 at 9:21 a.m.)

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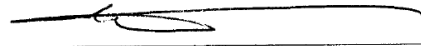
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 17th day of August, 2018.



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PETER PETTY  
CER\*\*D-493

Notary Public

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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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Myra Severtson  
Certified Transcriber  
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