

Peter Kosinski: Welcome everybody to the meeting of the State Board of Elections here on March 19th, 2019. I'm Peter Kosinski. To my right is Commissioner Kellner, to his right is Commissioner Spano and to my left is Commissioner Peterson. We will open today's meeting considering the minutes from the last meeting on February 27th. Is there a motion to approve?

Douglas Kellner: I proposed a revision which I think is distributed.

Peter Kosinski: I think it's incorporated into the minutes before us.

Douglas Kellner: Good, I'm sorry.

Peter Kosinski: Is there a motion? A second?

Gregory Peterson: Second.

Peter Kosinski: All in favor? (All ayes; 4-0) So those are approved. We will begin with unit updates and the first unit is the Executive Unit, Bob Brehm and Todd Valentine.

Todd Valentine: Well, we continue our work with the major reforms that have been passed previously and I'll talk specifically about early voting later on the agenda just give you an update on that but there were other changes that have been passed so far. And some are still pending. The June primary calendar has been passed and adopted. There is a bill that would reduce the signatures yet again, waiting for the Governor's signature and I didn't check this morning if it was signed. Not yet? But what we're really waiting for immediately is the budgetary issues and what comes out of that. We have had meetings certainly with the Governor's office and both the Senate and Assembly have put in funds that would fund the agency appropriately. There are some additional funds for some election reform measures but based upon the surveys we've done for the counties it might not be enough. But what we're still waiting for is the final budget to see if those funds end up in there. We have a plan ready to go if need be if those funds are not restored properly to do what we need to do to cut expenses, because if we don't get sufficient funds to run the agency, it's a significant challenge if that occurs. I know we talked about that at the last two meetings that we've raised this, but that specter is still there. We took a step forward with both Assembly and Senate putting the funds in but we're not there yet. So, we'll know some time after April 1st where we're actually at.

Peter Kosinski: So how short is the budget again in the Governor's proposal I mean?

Todd Valentine: About \$3 million out of a total of...

Peter Kosinski: Out of a total of 10 is that correct?

Todd Valentine: Eleven is the budget, well if you take the 1.5 off for enforcement which was not reduced in any way.

Bob Brehm: \$3 million of that is the special revenue fund for adjusting the voting machines so it's not really a correct number.

Douglas Kellner: But we're talking about a 30% staff cut at a time when our workload has significantly increased because we have to implement all these...

Todd Valentine: All points we have made to both houses of the legislature as well as the Governor's office. We remain hopeful but I'm an optimist.

Bob Brehm: But the Senate resolution that they adopted included \$3 million, the Assembly is a little over 3 because they have the re-approp numbers which would help us with some of the work we need to do with the 5 chapter laws they already did that aren't significant costs I think but there's still some work that we need to do to incorporate a technological solution to the immediate workaround that we've come up with many of the bills so it will give us a little bit of breathing room also under the Assembly budget that they've adopted. They've also included \$7 million in aid-to-localities for early voting and \$27 million appropriation in capital budget for E-poll books and ballot-on-demands systems you know from a budget point of view. I think with the other items we do have a vacancy in Senate District 57. We certified the vacancy on March 11th due to the resignation of Catherine Young. We've done a number of other, some of the other bills certainly the transfer regulations that you adopted at the last meeting we discussed pretty much with the county commissioners on a call that we had with them, a monthly call in February on Thursday after your Wednesday meeting but we also scheduled a specific call with the counties to talk about the transfer guidance and regulation and we did that last Friday to review...

Todd Valentine: And they did have some input on how they would like to see the transfers done when a county is transferring it back to them.

Bob Brehm: So we've discussed an interim process but also we would like to develop in the NYSVoter a technical changes it's almost like a reverse duplicate checking because of the way the transfers work but in the interim, the Commissioners came to a consensus during the call that they would prefer to transfer information between counties via e-mail so they asked the state board to do a survey of the single point of contact in each county which we have sent that survey out. We're collecting the answers and we will get that information out to the counties as quickly as we can so that they can share that information. Todd mentioned the signature requirement, we're waiting for that. The survey of expenses we continue to update for early voting expenses. Counties as they learn more, they adjust their numbers, they send them to us, or we notice that they don't necessarily always add up for the columns that we've given them, so we go back and try and get that information as straightened out.

In New York City they only gave us a lump sum of 103 million I mentioned before. But if you take their 103 million, the itemized numbers that we received...

Kim Galvin: Without poll books...

Bob Brehm: ...from the counties plus the people who need the poll books on election day to make the poll books on early voting kind of work together, we're at about 145 million, excuse

me, it's about 160 million of itemized items, and New York City has not given us a dollar amount for E-poll books for either early voting or election day. So, it's about 180...

Peter Kosinski: So, you're talking New York City 150 for early voting?

Bob Brehm: New York City... they're up to 103 they say for early voting, but I don't know...

Peter Kosinski: You're adding it up to 160.

Bob Brehm: Well the whole state.

Todd Valentine: For all the counties.

Peter Kosinski: Oh, the whole state okay.

Bob Brehm: Other people broke it down by workers or the categories that are in the survey.

Peter Kosinski: So, New York City is 103 out of the 160?

Kim Galvin: Without e-poll books.

Bob Brehm: Without e-poll books.

Peter Kosinski: Without e-poll books. So, New York City is 2/3 of the early voting costs in the state they're estimating. Is that because they have such a large number of sites or why would there be 2/3?

Bob Brehm: They didn't give us any of the breakdowns. Other counties told us how many sites. Of all the other counties that reported the number of sites its 194 early voting sites that they're planning on, so I don't know the number of sites that New York City is planning on, they didn't give us that detail. They just said it would be 103 million.

Kim Galvin: Well they have 35 at a minimum and a lot of the sites don't have any requirement for e-poll books because they're so small they're just doing one early voting site at the county board of elections, outside of New York City.

Peter Kosinski: So, you're saying a lot of the upstate counties are going with one site?

Kim Galvin: Yeah.

Bob Brehm: And some had a zero in, so we called those counties to see are you still working? Some counties with zeros are still evaluating e-poll books.

Kim Galvin: For example, one of them was Albany which will add a substantial number to their amounts. Bob would give that to me for late night reading and I would have to do the math.

Bob Brehm: So, we've coded the report where the county, Columbia, said we're not using e-poll books this year, so we stopped waiting for a number to update their zero. Others, if you're a zero and you're not highlighted in yellow that tells the staff we're still waiting on that. And the people are sharing information.

Todd Valentine: Once we started to share information the counties could see what the other counties were doing in a sense of where they stood in relation to their neighbors.

Bob Brehm: We shared that information with the Senate, the Assembly, the Division of Budget, those are the groups that asked us to get a number in the first place. We shared it with all the counties to make sure that we have whatever they want us to have correctly. So, we continue to update those numbers. From the staff level on early voting, I know we have a number of teams that are working on a number of items and will probably go through them in the unit report but Todd and I had worked with, it's a very small group in Schenectady county and Monroe county have been kind of models on how the Dominion system has worked for early voting or how did the ES&S systems work for early voting so we can at least go through Article 7, Article 8 and Article 9, how do you make a ballot? How do you run the election? And how do you close the polls? So, we can look at what the systems allows us to do. What does the law require us to do and where do we need to put something into the regulations? So, we've gone through Article 7 and 8. We're trying to schedule Article 9 but a number of things have come up this week so we don't have that scheduled yet where we can actually look at what do we need to do next. So that's been very helpful I think to all of us to get those documents and to start trying to think where do we need to ask you to provide clarity and regulation. I know counsel has come up with an initial draft of early voting regulation shared and got comments back but there are still some placeholders in for the operational team putting together some physical security related items. So from our estimate, we hope to have those done in the next week to 10 days in a better form to share with you, get out comments to the counties so that your April meeting the counties could have previewed the draft that we're giving you, giving us their preliminary comments so that perhaps you would be in a position to move forward with them at the April meeting.

Douglas Kellner: What are the security placeholders that you are contemplating at this point?

Bob Brehm: I think we're looking at physical security of the early voting sites related to the voting machines, the ballots. What do we require to be physically secure within the polling site?

Todd Valentine: I don't know that it's any different than what we do now because it's a poll site so there are existing security measures, what gets secured on-site so it's a question of depending upon how the site what you leave on the site. Day to day it would be unlikely you'd be taking the scanner back, but some counties might and that's fine too. But if it's staying on-site many deliver machines before the Election Day now so those same security protocols will be in place. The difference now is you're going to have to remove ballots at a certain point because the box will fill up over 9 days but there's a security provision in place for that. So, a lot of these measures we already have in place. It's hard to imagine what would be different for early voting other than this constant day to day, what are you going to do every day? How are you going to secure those? But it's really just envisioning how that works and given the flexibility for those counties depending upon how they're secured. For example; if your early voting site is your

own offices, the county board of election offices, presumably you have security for that now. You have your locations for securing your ballots so you can just wheel your machine into your bipartisan locked secure room, and you've taken care of that. But if you're leaving it at a private site, and depending upon the logistics of that, you have to consider as you do now if you deliver a machine early, what are you securing it in until the time of election? New York City for example has this cart for lack of a better term where the supplies when they're delivered early are all inside that. That is a secure cart in a locked room and then if the seals are broken, you'll know that they are tamper evident seals and it's like we won't use that because the seal has been broken. Bring in a new cart. So, it's the same process, the different security that we have to add that has to get added is early voting allows for the counting of ballots prior to election close of polls. Beginning at 8:00 you can start to count the ballots. So one of the things we certainly had to put in the regulations is people have a right to be at that because we are canvassing votes, it is a transparent process, but the problem is they have to remain, maybe for lack of a better term, incommunicado because those results should not get released prior to the close of actual polls.

Kim Galvin: Cannot get released.

Todd Valentine: Cannot get released. So, you have to allow people in but on the other hand they shouldn't be able to communicate out in any way. Like they can't put notes on the window saying, "Hey, my candidate won." They can't text things out. I don't know if you want to take all their cell phones away, put them in a Faraday Cage so they can't communicate out electronically, that's a new wrinkle to the process because right now canvassing is open, it's open to the public, it's transparent everybody hears the results at the same time. That's a big wrinkle with this one.

Douglas Kellner: Have them sign a...

Todd Valentine: Confidentiality? That's an idea. I certainly the term I've used in incommunicado but that would be, you'd need to keep a log of who's there.

Bob Brehm: That's like the assistance booth where you...

Douglas Kellner: Yeah, the inspectors and the public officials have a sworn oath to follow the law and the regulations as a condition for a watcher to be present they should agree, they should acknowledge...the requirement.

Todd Valentine: Your candidates and your watchers may not have that legal obligation.

Peter Kosinski: What's the point of the 8:00 opening?

Bob Brehm: So that you can finish at a reasonable time to get the closed poll done for each of the 9 days of early voting.

Todd Valentine: And that's one of the things we're trying to figure out is well if you put thousands of ballots on a stick, either one stick that you can reuse every day or you replace 6 multiple sticks time and again, how long would it actually take to run those? Right now,

Schenectady is actually running an experiment. They're running ballots, I mean thousands of ballots through 2 machines and taking the sticks out every day and they have one set where they're keeping it so at the end of this week that will be the end of their 9 day voting period, they're going to say, "Well how long will it actually take to extract the results out?" We expect it will be increased but we're not sure how long it will be so they're actually running an experiment to help us with that.

Bob Brehm: And Monroe County already did it using the Dominion System so that we would at least get real experience from a test how would we utilize the equipment we currently have to accomplish early voting? The other part which I think is also part of the security is the statute is written from the point of view where one team of inspectors starts the day and ends the day and signs documents that speaks to how did I find the machine when I arrived. How did I leave it at the end of the day? And with 9 days of early voting we have to make sure that the paperwork and the right now our procedures that we require reporting at the beginning and the end of the day is at least updated. The inspectors at the end of the day also preparing the early morning report for the group that's coming in tomorrow. So, in addition to saying, "I left it this way today" there has to be a way to verify when the inspectors come in tomorrow for the second day of early voting.

Kim Galvin: Plus, there's a provision that they can continue to use the same machine on Election Day.

Bob Brehm: Right. so that's where from a security point of view, are there nuances and that's why we're going through what is the statute requirement in Article 8 and Article 9 and where do we see a need for clarification most likely in either regulation or our procedure to see what we need to do. So, I think it's been very helpful. The work we've had of a small group of the counties just to get to step one. As we develop a little bit more information, we expect to share that with the counties very soon so that they have the ability to give us their feedback before we give it to you or at the same time we give it to you so that we all have the benefit of their feedback, like did we miss something that should be in there.

Todd Valentine: We jumped ahead onto early voting.

Bob Brehm: We also are working with OGS. We had an initial in-person meeting to try and get E-poll books on a procurement path. We raised it during our call with them last Wednesday and have had a number of emails back and forth with OGS to try and get people in a room to, even though we don't have the law yet, we're assuming the version we have, and I know taking the lead on E-poll book analysis in the agency has been Operations from their team of people with the assistance of IT and others to come up with both a security requirement, technical security requirements, and the functional requirements of the E-poll book for the point of view of an approval process that we would have to follow. So, they're working to establish that, and we're working with OGS to try and come up with a way to get a contract in place so the counties can purchase a central state contract with as many vendors who want to bid on items.

(Lights in Boardroom go out)

Kim Galvin: Here we go.

Bob Brehm: We did put a sign in that room, "Stop turning that light off."

Todd Valentine: It's not a power outage.

Kim Galvin: I think it's just a sensor in the petition room, too. That it will go off automatically.

Bob Brehm: Oh, okay.

Kim Galvin: It's in the petition room, too.

Bob Brehm: We have a ticket in with OGS.

Kim Galvin: We haven't found the sensors for my office, yet.

(Lights come back on.)

Douglas Kellner: So, let's assume that the budget bill contains the E-poll book legislation and that we will see that bill on April 1st or so. What would be the timeline of the steps? We would need to put in place our procedures for approving E-poll book equipment and I guess Tom and Brendan can go into what their preparations are for that. Is it realistic for example that the Board would be able to have the approved vendors determined within 2 months, say June? And then what would be the procurement process after that? And what I'm leading to is, is it realistic for counties to be planning on using E-poll books for November?

Todd Valentine: Well working backwards, the early voting starts in the end of October. So that in our analysis and based on what counties have told us, they would like to see, in order to do their training poll workers, they need any system like this, electronic poll books, in July. Okay. That's reasonable, July, end of July, August but in the July period. So assuming that, that means you have to go backwards from there in order for a delivery to be a machine poll book to be built, the delivery time from the vendors will vary but its anywhere from a month to 6 weeks so that pushed me back from June into May.

Kim Galvin: Yeah but they can always go with the approved list directly to the vendor. They don't have to buy off our contract.

Todd Valentine: Well what we did, we encountered the same problem when we did the voting machines. So, the way we structured that contract was the contract was let about the same time we were doing the approval process and it had a 2-step procedure in there. If you wanted to sell a device, you went through the procurement list and there were, there's a lot of protocol they have to go through anyway, but the second step is to get on a contract but the only way you can sell is being approved by the State Board of Elections. So that will put it late May, early June. So, in order to get this running, we would anticipate having the contract done shortly into April. But to Kim's point is that's only one-way to purchase the device. Our approval process is going to start, assuming the law gets passed in April, that we should have that up and running and

approved in that 2-month window right around the time you would be ordering we would be approving it.

Douglas Kellner: So, are you suggesting that it's conceivable that you could use E-poll books?

Todd Valentine: If the stars align it's possible.

Douglas Kellner: But that's what would be required.

Todd Valentine: You don't need the contracts in order to use them.

Douglas Kellner: You wouldn't want a plan...

Todd Valentine: No, I think if you had the approval you wouldn't have the state contract in place and that's the difference.

Kim Galvin: After people saw you testify in Westchester; we got an awful lot of calls because you indicated that E-poll books would not be allowed.

Douglas Kellner: I said I was skeptical.

Kim Galvin: Right, so they're approving a list based upon a category, I think they're approved vendors are going to be done shortly after, from what I understand, shortly after the budget passes.

Todd Valentine: In April.

Kim Galvin: So, if you have a list of approved vendors, if I'm New York City I don't have to buy off the state contract, I can go directly to the vendor.

Douglas Kellner: So, you would approve the vendors without a testing process or a state board review process?

Kim Galvin: Well they're reviewing now. They have hundreds of qualifications and they've had vendor demonstrations.

Todd Valentine: You'd probably have an approved list in May sometime.

Tom Connolly: There would be an evaluation process that would include a number of our requirements both functional and technical and we'd still have to get to the point where we would approve a device for use. I think that might be, could that happen outside of the procurement, the state procurement level is the other question. So, if we can just go through our normal evaluation process where we're testing these devices to our requirements, then theoretically we could have an approved list of vendors that if a state procurement is ready, they can buy off the state contract. If it's not ready, they could conceivably...

Douglas Kellner: And you think that can be done by June?

Tom Connolly: I think that based on the work that we've been doing on the requirements that we're hoping to try to get those wrapped up in the next couple of weeks. We're going to try and figure out the actual process of testing. We did look to, as part of our security testing...

Douglas Kellner: My question was when do you think...

Tom Connolly: When do I think?

Douglas Kellner: What I'm trying to do is give the world...

Kim Galvin: They have to get it done.

Douglas Kellner: ...a realistic assessment of whether they should be hoping to use, whether they should be planning to use E-poll books, whether they should be hoping to try for E-poll books or whether they should postpone introducing the E-poll books to the April primary. And what's realistic? And as I said, when I was in Westchester, I just said, "I'm skeptical" ...

Kim Galvin: And you worked the timeline backwards, I listened.

Douglas Kellner: Yeah, okay and all I'm trying to do now is have an open discussion so that the counties can understand our thinking on this of which of those three categories is doable or realistic so that they can incorporate that into their planning.

Tom Connolly: Right, I think that as far as, and Brendan is free to comment on this, I think as far as our requirements and figuring out a testing process and being able to test vendors, do I think that we'll be prepared to do so in order to have approved vendors by June? Yes. I mean that partially depends on the vendors coming in and if they're ready to go hit the ground running once, we have everything ready to go as far as this process.

Douglas Kellner: Do you think you'd be able to say this is an approved vendor by June?

Tom Connolly: Yes.

Douglas Kellner: Okay...

Tom Connolly: Do you agree?

Douglas Kellner: ... and so then if that's the case then it really comes down to procurement and vendor delivery time.

Kim Galvin: Right.

Bob Brehm: And that's what why we wanted to have a state contract knowing, as Kim said, a county could do their own individual purchase. Some counties if they're only buying a couple of machines for early voting....

Kim Galvin: What many counties are doing too, they're looking to other states where the main vendors are in anticipation that some of the main poll book vendors will be approved and they're getting contracts from those other states and they're getting prepared to piggyback off those in the event that 1 through 5 is approved. So, the counties are being very proactive because many of them think they cannot do it effectively without them. So, they are working in anticipation. They know who we're reviewed. We know who they've looked at. They know what other states have approved these, Texas, California wherever. They're looking for contracts there to piggyback for their local procurement in the event our state procurement doesn't come through.

Brendan Lovullo: Some counties also are doing pilot programs right now with individual vendors in smaller elections whether it be a village or they may have a special election for one seat to get, that may only have a couple hundred voters depending on where it is but at least to get something tested where the Commissioners and the staff can see how everything works. So, as opposed to just doing a show and tell when the vendor comes in, they actually have some kind of real-life experience.

Douglas Kellner: Now in terms of fair competition then, does the vendor community know that they should be in touch with you now?

Tom Connolly: We've been doing demos. We've done demos with 7 different vendors which is really the majority of the kind of universe that's out there. We continue to look and if anybody else comes in we'll have the same kind of conversation with them but looking at the landscape as far as the different devices and how it's kind of handled and how they communicate with different systems, so we've been doing that as part of our kind of development of guidelines.

Douglas Kellner: And so how many vendors do you anticipate would have systems that could be approved by June?

Brendan Lovullo: I mean...8, 9....so far.

Tom Connolly: Well, I mean with the E-poll book vendors, we've met with 7. So as far as how many would be approved? At a minimum probably 4-ish. I mean do I think that all of them would pass? It's hard to say because when we were talking with them, we didn't have our requirements to say, "Well these are going to be all our requirements, can you pass all of these?" We did check with them to say, "Were you certified in some of these other states that require certification?" Most of them quite honestly operate in a very similar fashion. They are mainly like tablet based or maybe 1 or 2 that are more software based that can be run on a laptop or otherwise. And some of our security requirements are really going to be dependent upon that hardware whether you're running a laptop and if you're running a laptop are you running windows? Are you running Linux, are you running a minimized version? How is that system hardened to protect it from outside from interference? So, I wouldn't be able to say whether or not all of them would be able to get through our criteria. Looking at what states have the criteria that we've been looking at, that ranges anything like Alabama to California to Virginia, Ohio...

Kim Galvin: Los Angeles.

Tom Connolly: ...there really is quite a difference in far as how in depth they go. Do I think that our requirements are more onerous than let's say Indiana? I don't necessarily think so but certainly not going to be as easy as let's say some other states that only have a few requirements that really don't go into like testing. I think we're trying to do our due diligence in making sure that we're doing a robust review of these devices but being mindful of the timeframe in which we can kind of execute the evaluation.

Peter Kosinski: So, there's no national certification process like there is for voting machines?

Tom Connolly: No.

Peter Kosinski: Has the EAC look at this as something they would take on like they did voting machines, or it's just not even being talked about?

Tom Connolly: Right now, all they really have on their website is kind of links to other states.

Peter Kosinski: So, they're leaving it to individual states to develop their own?

Douglas Kellner: The Help America Vote Act includes the certification process for the Election Assistance Commission, and it provides only for certification of voting systems and the definition of voting system does not include the poll book.

Kim Galvin: That's why without a bill they could have bought one and used it as long as they used the paper poll book. The delay in the legislature is really negatively affecting them in the sense that there's a requirement, if it wasn't passing through the legislature, they could purchase an electronic poll book as long as they print the paper copies of the poll books for the site. Now we have a bill coming through that requires certification by us so that delay coupled with that extra requirement, I know for example New York City has looked at 8 or 10 vendors, they're picking 4 or 5. They're trying to find other state contracts they could piggyback off in the anticipation that 1 or 2 or 3 may be approved by us and then they're going to execute based upon that, so Dutchess has done that. So, I know that it's a wrinkle that the legislature is delaying.

Peter Kosinski: But if they're certified they won't have to use the paper too.

Kim Galvin: Correct.

Bob Brehm: No, there has to be some redundancy...

Todd Valentine: The statute requires a redundant, some site of redundancy.

Douglas Kellner: Unless it's amended in the budget bill.

Peter Kosinski: I see so the certification will not relieve the counties of their current obligation to use paper in addition to the electronic?

Todd Valentine: Well it changes...

Kim Galvin: It should.

Peter Kosinski: Unless there's a statutory change...

Douglas Kellner: There's no requirement now for certification.

Peter Kosinski: Right.

Douglas Kellner: So, the counties can buy an electronic poll book system as long as they keep the paper signature.

Peter Kosinski: I understand...

Douglas Kellner: The proposed legislation would do two things, well several things; first of all, it would eliminate the requirement for the paper,

Peter Kosinski: Oh, it would...

Douglas Kellner: ...or the hard copy and it would require, I think they're using the word "approval" rather than "certification".

Kim Galvin: I do too.

Todd Valentine: Correct, it is approval.

Douglas Kellner: And then, of course, we anticipate that it will provide funding.

Peter Kosinski: Okay, so the bill would relieve them of this obligation?

Tom Connolly: What's normally spoken to about the paper is that as part of the requirements of the current language, we would have to develop, the state board has to develop minimum security requirements for the devices, and we have to come up with an approved list for the devices. We would also have to develop minimum security requirements for the networks in which they connect to and we have to figure out some process of certifying that the connections that are being used, in this case the early voting sites, follow our minimum network requirements. So that would be another process that we have to figure out.

Peter Kosinski: These will be tied to the Internet as opposed to our voting machines?

Tom Connolly: Correct.

Peter Kosinski: Correct, so there is that security element that the voting machines don't have.

Kim Galvin: But they won't be tied into the election systems.

Tom Connolly: Right they will still be segregated from the actual election, voter registration system. But the last thing that was in the language was that the State Board had to figure out basically a redundancy plan like a backup so should all the technology fail, what would you have as a backup? So, it could conceivably be a paper list albeit in a possibly compressed format. So, for example, Illinois basically prints a backup copy of their poll book but really, really small and fits a lot more names on the screen just in case for some reason all of the E-poll books go down and I have no technology, no way of checking in voters, at least I still have I can pull out this smaller print paper poll book that I can at least continue on the operations of checking voters in.

Peter Kosinski: I see. And the status of this legislation is?

Bob Brehm: It passed the Senate on February 27th. It is printed in the Assembly one-house budget bill. It is in the Governor's Article VII bill. It hasn't passed or been signed yet.

34:28

Peter Kosinski: So, it sounds like it will be done in conjunction with the budget?

Kim Galvin: If it's done.

Bob Brehm: Correct.

Kim Galvin: Whenever that might be.

Douglas Kellner: Very helpful discussion I thought, and it looks like we have really advanced the ball downfield quite a bit since the last meeting.

Peter Kosinski: Okay is there is anything else from the...

Bob Brehm: Just the last thing that was on my list was New York State updated the appointees to the Federal Election Assistance Commissioner Standard Board and the two previous appointees remain. Commissioner Kellner is the State Representative from us and on the Republican equivalent is the local representative Rachel Bledi from Albany County.

Peter Kosinski: Okay, well congratulations.

Douglas Kellner: And the next Standards Board meeting is April 9th.

Peter Kosinski: Okay anything you wanted to report on that? You've been on that board for quite a while, right?

Douglas Kellner: I have been now, and the Election Assistance Commission is finally got 4 Commissioners for the first time in 6 or 7 years and has put out for publication version 2.0 of the Voluntary Voting System Guidelines which provide a more flexible system for certification testing by the Election Assistance Commission. Rachel and I both voted against the initial draft because it did not include a requirement that there be a voter verifiable paper audit trail as a condition for certification. And that has not changed. But, if you compare the 2.0 version to the guideline that's currently in effect which is 1.1, there are significant improvements. So that's a tough issue and they're leaving out a key component that I think is fundamental to voting machines, but objectively this version is better than the existing version. So, we'll see what happens at the next meeting.

Peter Kosinski: Okay anything else? Alright. Then any other questions for the Directors? No? Then we'll move on to the Counsel's Office Kim Galvin and Brian Quail.

Kim Galvin: Thank you. I mean what I'm about to say seems general, but we have been very busy. It reminds me of an even year petition time. I don't know what's happened, but something has overtaken the Board to create havoc and busy times. So, we finalized the updates to the various training advisory materials regarding the LLC changes that was effective 7 days after the legislature passed it. There have been several follow up questions on that, we're working through them trying to get the filers answers. We've begun the outreach to the filers regarding the new CAPAS-FIDAS System requirements that they're going to have to provide to us in order for us to better serve them and for them to make their filings. All the Compliance staff has attended IT training and review on the new system. We've tried to anticipate new unit needs that is going to result from the new filing system. For example, all the local filers, what are we going to do now that we have them all uploaded and how are we going to review them and how many people is it going to take to review them and all of these things contingent on budgets and things like that. We've reviewed the January filings. We've exchanged drafts on an opinion regarding loans and debts and forgiveness of the same, that's not quite ready for today, if ever. We've done the regulation filing of the paperwork on the cross-county registrations that we discussed and the 16-year-old pre-registration that you did at the last meeting. We've worked with IT and met with IT and IT has developed a way to remove the watermark off the signatures for the cross-county voter registrations that's required for the "to" counties, the "new" county to accurately review the signature attached to a voter registration file. We've participated in the calls, the county calls and the specific call on the cross-county registrations. We have drafted our Annual Report and given it to Mr. Conklin, so we don't get in trouble at this particular meeting. We have obviously, we've participated in and discussed and exchanged drafts on the early voting topic and the poll book topics that we've discussed. We've processed an unbelievable amount of FOILS and subpoenas with the Public Information Office. We finalized the training unit schedule contingent upon budget finalization that Bob wrote in big red letters across the top of it, and we've monitored the legislative activity for more possible legislation that can be headed our way. Because, before we used to say if it passed both houses, we would get calls on it. Now, no matter what appears on any agenda in any house, the phones start ringing and we try to hold people off but anything can pop out as they're proven at any time so it's taken a great deal of time to anticipate, okay public finance is off, it's on, its off, it's on, what will it take, what will it cost? So, we've spent a great deal of time doing those sorts of things.

Douglas Kellner: But that's important right? Because we want people to call.

Kim Galvin: Yeah, it's just before we would have a better idea, now we have no idea whatsoever. Then we have all of the regular litigation that we're handling and monitoring. We've responded to *Sugarman v the New York State Board of Elections* and we're waiting for oral argument to be set on that. And I think that's about it, Brian?

Brian Quail: I'm not going to add anything. That was very thorough thank you very much

Douglas Kellner: You've been busy.

Kim Galvin: We've been busy.

Douglas Kellner: And we have a lot to do to implement early voting...and electronic poll books.

Kim Galvin: And everything else.

Peter Kosinski: I understand there's a hearing tomorrow on public financing.

Bob Brehm: We were invited yesterday, and Todd and I are preparing to testify tomorrow. So, if anybody wants to watch the webinar starts at 1:00. The last time we ended up about 7:15. Senate Elections. Hopefully we'll be earlier while the sun is still out.

Kim Galvin: Like I said it's like an even year heart of petition time. We are moving. It's good.

Bob Brehm: That's coming too.

Kim Galvin: Yeah thanks for that Bob.

Peter Kosinski: Anybody have any questions?

Douglas Kellner: And what is the date for filing petitions?

Kim Galvin: April 1st through the 4th. April Fool's Day.

Peter Kosinski: Okay no more questions, we'll move on to Election Operations, Tom Connolly and Brendan Lovullo.

Tom Connolly: Thank you Commissioner. As was already mentioned, we did receive notification of a resignation in the 57th Senate District that was sent out to the four counties that comprised that district back on March 11th.

From a voting machine standpoint as far as certification goes with the ES&S, they did finally submit the remaining source code changes that they were doing to SLI on Friday was the last submission. So, at this point we've been waiting for SLI's report on the source code. We are still in conversations...

Douglas Kellner: This is for the certification for the ES&S Express Vote XL.

Tom Connolly: Yes. We are still awaiting a revised version of the TDP or their Technical Data Package. We've been having conversations about some of their language about covering proprietary materials and haven't been satisfied yet with what they've come back with. So, we are expecting a revised version I think in the near future.

With regard to Dominion we did receive two de minimis change orders from SLI one for the addition of a plastic ballot box and one for a secrecy sleeve that could be mounted on the Image Cast Evolution or the ICE machine. Staff has also been in contact with both SLI, the testing lab, and also NYSTEC, who we use as an independent security consultant regarding the potential security issue that was raised by Commissioner Kellner in his memo which I believe will be discussed under new business.

Clear Ballot, we are finishing up the test case work for their upgrade submission. They will be on site tomorrow as part of that process.

Regarding Cybersecurity, we continue to be involved in the conversations with Grant Thornton and NYSTEC and OGS about the various security initiatives and procurements. We have been working with NYSTEC as far as reviewing the Security Incident Response policies and procedures so we kind of got a little waylaid on some of the other things we've been working on, but we will be getting back to that shortly.

Miscellaneous – we did, at the request of the Commissioners from the last meeting, we did send a letter to the New York City Board making ourselves available to help in facilitating some sort of resolution to the issue regarding the additional translators at the poll sites.

We have been working with the voting machine vendors and as mentioned before both Schenectady and Monroe counties regarding some of the early voting, I'll say, testing. We've also been doing a lot of testing internally just to kind of run the machines through different scenarios, understanding the limits of the different portable memory devices, the time it takes to run certain tapes, run certain reports so that we can kind of have the answer proactively to the questions that the counties might have as they go forward in coming up with their own plan for early voting.

As was also discussed, we've been working a lot on requirements for electronic poll books. We've been doing research with what other states have been doing. We've been developing our own requirements both from a security standpoint but also from a functional requirement standpoint trying to figure out what are our evaluation process would be for these devices. We've also been working on the network requirements that the current language makes us responsible for coming up with. We've been also looking at ballot-on-demand devices just to kind of also get an understanding of what that landscape looks like, understanding the inter-connectiveness at times with some of the E-poll books trying to figure out if that raises any additional security requirements for electronic poll books or what other things we might have to be thinking about with regard to the ballot-on-demand systems. They were mentioned in one of

the house's budget bills but unlike electronic poll books where we have kind of current language to go on, what is going to be expected of us to develop, we don't have the same with regard to ballot-on-demand printers. So, we're just trying to become as familiar with them as possible so that once the language came out if there's any additional requirements of the State Board, we would be positioned to kind of move forward with that.

Douglas Kellner: New York City already uses ballot-on-demand printers for its absentee ballots. Are you familiar with that system?

Tom Connolly: Yes.

Douglas Kellner: And are there other counties using ballot-on-demand printers at this time?

Bob Brehm: For absentee votes, there are several that print their own.

Douglas Kellner: Who or how many?

Bob Brehm: Washington prints their own for absentees, Schenectady prints their own, say on-demand, I guess it's not necessarily one in for a ballot for them, but they do print in-house a certain number.

Douglas Kellner: Well, I know a lot of counties do in-house printing. And there's no legislation that I'm aware of that would require us to certify or approve the ballot-on-demand printing system.

Bob Brehm: Correct.

Kim Galvin: No but there is a stub issue.

Douglas Kellner: Yeah, why don't you talk about the stub issue?

Kim Galvin: I don't know enough about it except for everyone says there's a stub issue and the current law requires that the ballots be stubbed and numbered, and the ballot-on-demand printers don't have stubs.

Todd Valentine: Election Day ballots are treated differently than absentee ballots. So absentee ballots don't require a stub cause it's the purpose of the stub is to....

Kim Galvin: Reconciliation....

Todd Valentine: ...reconcile the number of ballots that were produced as compared to the number of voters who signed into the poll book as compared to the number of ballots that are actually in the machine. So, it's a check, it's actually a critical internal control to determine whether or not there are too many ballots in the box.

Douglas Kellner: Well the issue is whether it's a critical internal control.

Todd Valentine: Well it's a control we have cause that's one of the, the stub...

Douglas Kellner: Right now, New York is the only state that requires the stubs.

Bob Brehm: So [N.Y. Election Law Section] 7-106(3) of the statute requires the perforation and a stub.

Kim Galvin: My question was why can't you have a stub of blank ballots and take a piece of paper off and put it through the on-demand printer?

Bob Brehm: Many of the on-demand printers' provider other logs of what their valid accountability is. I know the Operation Unit has been reviewing what are the features of on-demand systems with our existing procedure that we use for ballot accountability above and beyond the stubs? And I think we would hope to get together very soon after they've concluded their review of those systems and I know we've been meeting daily to catch up with all of them. So, hopefully this week we'll be completed with that and we can sit down. But I think we would recommend amending 7-106 to provide an exclusion for other accountability that may be able to satisfy the stubs. But that was on the legislature...

Todd Valentine: Well Kim is correct you could have a book of stubs, pull out the ballot, indicate which ballot you were printing and with each ballot, the machine can print individual ballots, that's the beauty of it and print that ballot off one at a time which is what you're doing anyway.

Kim Galvin: Hopefully they fix it.

Brian Quail: That would account for the paper used but it wouldn't account for the particular ballot style.

Todd Valentine: The stub would have to indicate which ballot...

Kim Galvin: You'd have to keep a log. You'd have to write on the thing.

Todd Valentine: You'd have to keep a log.

Brian Quail: Many states as has been mentioned have managed to provide robust ballot accountability without the stub and it does seem that while certainly there are options that may include the stub, it would probably be a very value-added change to the election law to allow...

Kim Galvin: I agree.

Brian Quail: ...alternatives that are just as robust in terms of ballot reconciliation if the Legislature would take that up.

Kim Galvin: However, at the late date, create and robust we are now back in the corner of are we going to have enough time.

Douglas Kellner: Right. Well I'm glad you mentioned it. Because I think if there is a consensus on how to address this and it sounds like this is one of the issues that needs to be on the agenda for trying to form a consensus on what is the appropriate way to do this, then we need to tell the legislature sooner rather than later in hopes that they can tweak the legislation.

Peter Kosinski: What is New York City doing?

Kim Galvin: They're waiting for a stub resolution.

Peter Kosinski: Aren't they already doing this?

Kim Galvin: No just absentees, it doesn't have the stub requirement.

Douglas Kellner: The question is, can they do it for early voting?

Kim Galvin: They don't believe so.

Todd Valentine: Not as the statute is currently written.

Douglas Kellner: So, the issue is it sounds like we are not ready to recommend legislation today.

Todd Valentine: Not at this point.

Douglas Kellner: But is it conceivable that we can do it for the next meeting? That we can draft it...that we can get a consensus.

Bob Brehm: My people will share with you and maybe have a quick phone call if we need it sooner. I think if we're going to be doing this so that the devices can be purchased, generally the legislature will do the budget between now and April 1st but as soon as the budget is over, we should be prepared to have a recommendation.

Kim Galvin: Unless it's in the budget and we missed the boat.

Douglas Kellner: Well the stub isn't going to be in the budget.

Bob Brehm: No, I think this is a post budget item.

Todd Valentine: It's not in any of the budget language now.

Bob Brehm: I think it's a post budget in that...

Douglas Kellner: The feedback I'm getting is they're waiting for us. But if there is consensus from us, I think that there's a strong likelihood that we could get the bill passed promptly. But they're waiting for a consensus from us and I think it's important that there be a bipartisan consensus. Pardon.

Kim Galvin: We didn't know they were waiting for something from us. I was waiting for...

Douglas Kellner: Well "they" you know is a very amorphous term. I haven't spoken with 213 members of the legislature but...

Todd Valentine: I didn't know that at all.

Kim Galvin: I didn't know anyone was waiting for us, but we can we'll just...

Todd Valentine: We can put that on the list.

Brian Quail: One of the things I would just like to mention in terms of what the actual solution is that is the alternative to the stub is one question. But the legislative authorization to have something that is equivalent to the stub it could theoretically be a very simple tweak to the actual statute. The actual answer may be a little more complicated...

Kim Galvin: That's right.

Brian Quail: ...but the legislative fix could actually potentially be quite simple.

Kim Galvin: Right.

Douglas Kellner: So, the goal is to try to get...

Kim Galvin: Nothing is simple.

Peter Kosinski: How do counties accommodate early voting without on-demand?

Bob Brehm: They have to have...

Peter Kosinski: They have to have every ballot available. They have to have security for...

Kim Galvin: That's why they're going to have to divide up and chunk up their counties.

Peter Kosinski: I mean isn't there a high incentive to allow ballots-on-demand because if we don't the ability to deliver early voting is severely compromised not to mention the security issues at keeping these ballots secure during that 10-day period?

Bob Brehm: I mean the smaller counties can accommodate 20 ballot styles if that's they have 20 towns, small number of EDs. But once you get beyond a 20 and more importantly when you get to next year with primaries in each different party that you also have to have a separate ballot for, it makes it very difficult to anticipate that you will be able to have one ballot for every option you have so any voter who comes into your early voting site can service them and then how many show up?

Kim Galvin: Right and not to mention, the legislation itself provides that if you can't agree, and we have no indication that this is happening out there, if you can't agree on the number of sites, every site must provide every ballot style. You can't do that in my opinion.

Peter Kosinski: I mean you're really compromising your early voting if you don't have it because you're going to have to limit a site to a specific geographic area to realistically accommodate those number of ballots.

Bob Brehm: And from what I can see, we're the only state that have perforation numbered stubs. It's a holdover from Tammany Hall Days when the parties were handing out the ballots and accountability issues were some issues certainly. But we already have a number of ballot accountability procedures in addition to numbered stubs and that's why Operations has really been looking at the ballot on demand systems that are out there to be able to clearly understand what are the features, because they provide additional logs of what was entered into the system as far as activity and what was printed per ED or per ballot style that may help us to come to an understanding that it's an equivalent. It's an equal security.

Kim Galvin: I know we're talking about Op's issue and I'm sorry for that but one of the things that came up today that is most pause for me is the robust styles of reconciliation that other states have. I personally have not looked at any of them so that would be, we're all of us together would have to agree on the robust style reconciliation before we could come up with a recommendation to just remove the stub I would think.

Douglas Kellner: Or you could write the legislation saying that we'll remove the stub if you have agreed procedures. But I think the consensus then is though you should spend some time on this issue and try to see if you can come up with legislation that we could propose to the legislature.

Peter Kosinski: Well if we're the only state requiring the stubs, it seems every other state has found a way to accommodate this need without the stubs. It shouldn't seem to me to be too difficult to come up with one that other states have used and it's acceptable. I mean we shouldn't have to reinvent the wheel here it seems. We must have models out there.

Kim Galvin: It seems everything's more difficult these days, but I agree.

Peter Kosinski: Fair enough, I understand that but I'm just saying I don't think this is something that's never been looked at before, it's unique to New York and we have to someone invent something. I would think there's something out there we could use as a template.

Douglas Kellner: I agree, and I guess the point is that the feedback I'm getting is that the legislature would be responsive if there's a bipartisan agreement on how to do this.

Tom Connolly: And I think that most of the electronic poll book and ballot-on-demand systems that are in the wild now already have certain functionality that address that because they have to be, that has to be in place in order for these other states that have these other reconciliation methods. So, it would not be like reinventing the wheel as far as functionality goes. So, I think

we'll see that a lot of the tools that we might want to use in order to come up with whatever New York decides for reconciliation may already be in place.

Peter Kosinski: Okay. Anything else for Operations? Brendan? No. Okay then we'll move onto NVRA/PIO, John Conklin and Cheryl Couser.

John Conklin: Thank you Commissioner. The Public Information Office has been busy since the last meeting. Some of the hot topics include as we discussed here early voting, the cost of early voting, but continuing changes to the signature requirements for the petition gathering period that's currently going on. Electronic poll books, campaign finance, Cybersecurity, the possibility of public financing of campaigns and questions about the vacancy in the 57th Senate District.

The unit has participated in the monthly ECA call in February as Bob mentioned. We continue to be part of the meetings on Cybersecurity and the implementation on the contracts on risk assessments and managed security services for the county boards.

We processed 116 FOIL requests in February. Cheryl is managing the necessary translations that we're doing for all the forms that we've changed since the beginning of the year. We are expecting delivery of voter registration forms next week. We're working on the Annual Report as Kim mentioned.

Douglas Kellner: On the annual report, are there units that have not yet provided you with their drafts?

John Conklin: Yes.

Brendan Lovullo: We have not.

Douglas Kellner: I guess you have an excuse.

Brendan Lovullo: Thank you.

Kim Galvin: We had an all-out 3-day effort on that.

John Conklin: So, I'm also waiting IT and I'm also waiting for Enforcement.

Okay, so for the website we also published a revised version of the political calendar. We published the 2019 campaign finance seminar schedule. We posted the regulations that we've passed here 6214 contribution limits, 6217.7 on the transfers and 6217.9 on the preregistration of 16-year-olds. They are all on the website and we posted the transcripts for the January and February board meeting.

For NVRA since the last meeting, the team has visited Cortland, Herkimer, Montgomery, Wyoming and Orleans counties for NYSVoter reviews. All those counties were found to be compliant. They traveled only 960 miles for those counties.

Voter history is now complete for the 2018 General Election in the NYSVoter system. There were a few cyber incidents and connectivity problems that prevented some boards from finishing their voter history until last week and one board had to reload their history for type because they had sorted their absentees and affidavits and Election Day ballots differently in the system. So, they had to be taken down and reloaded.

Lastly, there is still some counties out there who have election training and state funds for capital improvements. We sent the contracts out. Most of them have come back but I just want to remind them to send the copies back to us signed. So that is all that I have. I don't know if Cheryl has anything to add.

Cheryl Causer: The only thing I would add is we continue working on accessibility issues on our website and we have our next meeting tomorrow to progress on that.

John Conklin: That's pursuant to the Eason lawsuit.

Peter Kosinski: Any questions? Okay thank you. And onto ITU, William Cross.

Bill Cross: Good afternoon Commissioners. Start with projects, the CAPAS-FIDAS of course development continues. Most recently still on EFS [Electronic Filing System] and the back-office functionality, clean ballot access. Also working on the implementation of the new secure portal and the login and security requirements around that. We held a demonstration for the electronic filing functionality for the treasurer's workgroup and public entities on March 6th. We received some good feedback from that. We are also scheduling demos and outreach for the vendor and county workgroups. We have a demo scheduled for public reporting for the Board for next week. We also continue our efforts to wholly staff the project. I reported last month we identified a candidate for one of our programming positions. Of course, they accepted and later declined. So, we are back and still in that mode.

NYSVoter, the state board continues to work with the vendor to finish implementation for disaster recovery. We have scheduled testing for mid-April. It's the fail-over from our production data center to our disaster recovery site and back.

The MOVE [Military and Overseas Voter Empowerment Act] – we're also continuing development in the in-house MOVE application. We worked with Executive and the other units on developing the budget estimates for new legislation as well as technical review of E-poll books.

Accessibility – IT has worked with PIO and the other BOE units on meeting requirements of the Accessibility lawsuit. Our developing projects and requirements for updating our current website applications, clean voter look up and election night reporting as well as encompassing some different updates in CAPAS-FIDAS to match those requirements. And currently working on remediation of substantial number of PDFs that are currently on the website.

In terms of security – Secure Election staff continues to work with the county boards on recent cyber incidents. That seems to be the new normal. Since our last meeting we had another

county encounter the cyber incident which necessitated bringing NYSVoter connection down. And we've gone through the recovery efforts with that county.

Douglas Kellner: What's the story about that?

Bill Cross: This particular county was Putnam. They encountered a cyber incident where infection spread across multiple machines. In this case, Election Systems weren't directly impacted by that.

Gregory Peterson: Excuse me, when you're talking about machines, I assume you're not talking about voting machines.

Bill Cross: No, I'm sorry.

Gregory Peterson: Because that's not possible.

Bill Cross: Sorry. So, servers and workstations and PCs. Sorry.

Douglas Kellner: And these were servers and PCs that had access to the system that the counties use for uploading voter registration transactions?

Bill Cross: Potentially. Many of the counties it is not segregated so it is segmented it's all in the same. In this case it did not, they had enough segmentation where it did not affect anything with elections besides some centralized county services which were affected but nothing not the specific PC for our Voter Registration systems. I have abundance of caution whenever we're made aware of any cyber incidents in the counties, we take the link to NYSVoter down because at that point usually we don't know what the extent of the incident is or how it propagates along those lines. We take our connection down.

Peter Kosinski: Bill how do you become aware of an incident at the local level?

Bill Cross: Various methods. We do have a cyber incident response procedure we've asked the county boards to implement where they contact DHSES [Department of Homeland Security & Emergency Services] first and us second. But we have heard alternate through other means previously to the Boards in which case we then, of course, have them go through these routines to make DHSES aware and make us officially aware.

Peter Kosinski: So, they notify us? There is a procedure where they notify us?

Bill Cross: Yes.

Peter Kosinski: We would not know it but for them notify us though is that correct? We don't have a way of determining it here.

Bill Cross: Not directly. Unless we saw something directly. If we see a connection down with their system usually, we run it out on a daily basis anyways. But that's not always by malicious

means, they could be doing routine maintenance work and things like that. But we usually will inquire. Our procedure though is to bring our connection down any time we are made aware of it and we have a procedure for bringing it back up. And we do a full data offline audit of data and then online data audit and require all password and credential changes on NYSVoter just to insure nothing was affected there and a fresh start again. Putnam, the one from this past month is Putnam, they are now back online.

We also continue to work with the county boards. The other security efforts, of course, the risk assessments. 56 site visits have now been completed; only Nassau and New York City are outstanding. And we received the first just early this morning we received the first early risk assessment report for review from Grant Thornton. The Intrusion Detection Systems have now been installed in 54 counties across the state providing a significantly enhanced level of protection for the Boards. We will be working with the remaining counties to facilitate the remaining installations or at least verify that they have some existing IDS capabilities and don't need our offering, but we have to have those conversations. We're also working with the Managed Security Vendor, Sedara on the initial pilot counties for that project. There was some question about budget around that. I think we've worked with them and we're moving ahead with the pilot county there.

As reported last month, we have our own risk assessment scheduled with the Department of Homeland Security for late July. In the meantime, we're working on several security improvements on our own in our own systems.

The Board also had a kickoff meeting with SUNY, Center for Technology and Government on the NYSVoter Data Project and the goal of that is to yield a solution to detect abnormalities in data as they're coming from the county board systems either abnormal volume of transactions or changes in key data fields and things along those lines and also provide us with some better metrics from existing data. We had a kickoff meeting to discuss the scope of that project.

And, of course, we're working on the Annual Report. And nothing remarkable to report about the website. Normal post level for post-election.

Peter Kosinski: Any questions for Bill? Okay thank you. And last, we have Risa Sugarman on the agenda although I note she's not here again today. I believe this is the third meeting she's missed. I believe it's in conjunction with the lawsuit, at least that's my understanding.

Douglas Kellner: Has she told you that, that's why she's not coming?

Andy Spano: She said that originally.

Douglas Kellner: To the first meeting. And so am I correct that in the last year she has not made a single criminal referral...

Todd Valentine: Yes.

Douglas Kellner: ...and she has not made a single request for a subpoena in the last year?

Bob Brehm: December of 2017 was the last one.

Douglas Kellner: And what is the number of outstanding referrals to her that the Compliance Unit has made? It's a little over 3,000 as I recall.

Brian Quail: Somewhere in that neighborhood Commissioner. I normally bring that piece of paper with me and I appear to have mislaid it today.

Douglas Kellner: Well if you don't have it you don't have it. But it's certainly in the thousands.

Andy Spano: It's over 2,500 I know that.

Douglas Kellner: And were any new hearing officer proceedings commenced in the last month?

Bob Brehm: No.

Kim Galvin: And after the review that we did on the non-filers, I think she indicated to the co-executive directors that she was still reviewing it.

Bob Brehm: From the July 2018 non-filer report.

Douglas Kellner: So, we're not aware of anything that she has done with respect to Enforcement in the last month except suing the Commissioners.

Brian Quail: That would be accurate.

Peter Kosinski: Well alright thank you. So, I guess with that we'll move on to Old Business. Is there any Old Business to come before the Board? I see none so we'll move on to New Business and now we have two issues. We did the early voting in large part although we can talk more about it if you'd like but we also have another item, the voting system security issue which I believe Commissioner Kellner has brought up.

Douglas Kellner: So, I have written a memorandum which spells out reports that two prominent computer science professors, Andrew Appel at Princeton and Richard Demilio at Georgia Tech have pointed out as a potential point of attack on the Dominion ICE machine.

Gregory Peterson: Which is the ballot marking device.

Douglas Kellner: Well it's a combined ballot scanner and ballot marking device, right. So, I reviewed the initial security threat assessment submission that the vendor was required to make with respect to their certification application and it does not address that as a potential point of attack. And the SLI and NYSTEC reports to the Commissioners also do not address that. So, I am requesting that the Election Operations Unit examine that specific issue and in particular that we ask SLI and NYSTEC to provide us with additional reports or updated reports that address that explicit point of attack.

Peter Kosinski: Okay well maybe we can get into a little more detail of exactly what we're talking about here. So there was, as I understand it, there was a blog posting by a professor from Princeton who raised some issue about the possibility of compromising, I guess, these machines and I looked at the blog posting which I guess we shared with all the Commissioners I believe. My understanding was his focus was on the ability of someone to potentially hack into the machine undetected and put some malware in to change the configuration. Am I characterizing this?

Brendan Lovullo: Um-hum.

Peter Kosinski: So maybe you could speak to that a little bit as far as, now this is just so we all are understanding what we're talking about. This is a machine that was certified here in October of 2018. So, it went through the process that we go through with any voting machine which is to provide the machine to our tester which is SLI in the nation they are one of the two approved voting machine testing agents approved by the EAC is that correct?

Brendan Lovullo: Yes.

Peter Kosinski: So, it went through that and NYSTEC provided us with additional testing that we wanted at the state level to certify the machine that got approved at all those levels and then we went ahead and certified. Is that a fair representation?

Brendan Lovullo: Correct.

Peter Kosinski: So, the issue raised by this professor can you maybe elaborate a little bit on this, so we get a better understanding what we're talking about?

Brendan Lovullo: Sure, this original I think post was back in October and it was I think brought to at least our attention towards the end of December when the Dominion added the ICE machine to the central contract with OGS and they brought it to our attention and said, have you seen this and we responded back after contacting with the...

Gregory Peterson: Be more specific. When you say, have you seen this, have you seen this blog?

Brendan Lovullo: Have you see this blog?

Gregory Peterson: We're talking about this in December correct? When we were about to certify it?

Brendan Lovullo: After we had certified it.

Gregory Peterson: Certified it already gone to the state.

Brendan Lovullo: It's already gone through been certification, that was in October. The blog post happened at some point in October, I don't have the specific date. In December OGS

contacted us and said, “Have you seen this, do you have comments on this” and we responded back that the system, as certified, cannot do this and then OGS said, “Okay” and they posted the system to the central contract. At that point, the counties were in discussion as far as purchasing the machine to update their fleet of older and aging machines in order to get this going and obviously it became a little bit more focused on getting new machines out. Once all the early voting bill started to pass, because a lot of the counties are going to need additional machines to help offset the load that they have on their machines, if they have multiple sites for early voting or just want to have more machines that are out there. So, we did, prior to the last meeting, Commissioner Kellner came and asked for an overview of what the machine does and had questions related to this specific blog and we did a run through of how the machine works and how the ballots go through the track...

Gregory Peterson: What was the timing on that?

Brendan Lovullo: It was before the previous board meeting. So, we did that, we went through the information as far as the ballot path and how the machine works. And then I want to say it was March 6th or 7th the memo from Commissioner Kellner came citing this specific post and the, I guess the underlying issue is that if somewhere to blow by all the security provisions that we have in place that the machine also has in place and would replace the software the firmware, get access to the actual EMS itself which again as we talked about before is not connected to any Internet. There’s policies and procedures in place where this is separate at the board in order to create the files and then replace software and firmware on each individual machine in order to come up with something that would make the machine cause the machine to add additional marks onto someone’s ballot. And I think that’s where we are now. Tom may have...

Tom Connolly: And I think that the kind of issue that possibly wasn’t part of our process in the past was that the machines that were in use before the ICE was certified, the functionality of marking a ballot and then scanning a ballot have been physically segregated on both the ICE and also the Express Vote XL. From what we’ve been able to see from the technical specifications or at least the diagrams that we’ve received, the printer and scanner in these devices share a similar ballot path. So, whereas before, the issue of being able to exploit any sort of technical vulnerability in a device was...

Gregory Peterson: Excuse me when you’re talking about, they follow the same path meaning a normal ballot as well as opposed to one that is marked by the machine is that what you’re saying.

Tom Connolly: Theoretically the device has one ballot path where both the scanner and the printer could be accessed not as certified but technically speaking from a physical standpoint there is one kind of loop.

Kim Galvin: Not as certified.

Tom Connolly: So, whereas before there was a physical separation where if someone was doing a ballot marking session, they would put in their blank ballot or they would put in a blank piece of ballot paper and they would end up with a marked ballot but they would then go over to the optical scan and be able to either do an independent verification or just cast their ballot. The

issue that seems to be somewhat unique to the newer systems that we're looking at and as I said, it's both Dominion and in ES&S, is that they're now kind of combined and self-contained so there's no longer that physical separation. So even in the old Dominion where you still had one kind of unit, you had a ballot marking, the printer came out and you took that ballot and you walked around to the front and you scanned it in. In this case it's kind of an all-in-one.

Kim Galvin: Can I just add something quickly in there for our Commissioners that was done by Dominion to allow a disabled voter to actually have full ability to cast their ballot as well as opposed to marking it and then having it print out and then have a poll worker walk around and scan it. For the privacy concerns and pursuant to a requirement that's why it's an all-in-one.

Peter Kosinski: No, my understanding was this was done in large part at the behest of the disabled community who felt that having the machine separate was not accommodating so this was designed to accommodate both the disabled voter and nondisabled voter on basically the same machine so they would have the same experience voting. Is that fair to say? I mean I don't think the vendor came up with this just on their own, this was done because of that concern.

Tom Connolly: That could very well be the case and like I said, and it seems to be with the current generation of voting machines not just the one vendor so that very well could be where the market's been pushing them. I think as part of this process what we had done was when Commissioner Kellner first raised Professor Appel's concern, we simply went up to NYSTEC and SLI both of who had been part of the certification process and asked them if they had looked at the specific allegation in his document to see whether or not they did anything to see if this was addressed. Neither one of them said that this specific allegation was addressed. I think they both agree that...

Douglas Kellner: Let's call it "point of attack".

Tom Connolly: Okay, so this point of attack was not addressed in SLI's security testing or NYSTEC's review of that of SLI's work which is part of the certification process.

Peter Kosinski: So, when you say, "point of attack" Tom what do you mean?

Tom Connolly: Well trying to attack the voting system in order to facilitate the additional marking of a ballot once the voter has already either marked their ballot whether by hand or by using the ballot marking device.

Peter Kosinski: As I read the Professor's analysis, it was based largely on the design, that the machine has both the printer and the reader within the same machine which is exactly what it was meant to do. Am I correct? That that was the idea was to accommodate both voters by having both of those devices contained in one machine?

Douglas Kellner: But the security threat is that when the ballot is inserted into the scanner, that the ballot could pass through the printer and that the printer could add marks to the ballot and have the ballot deposited in the ballot box without verification.

Peter Kosinski: But is it my understanding that that could only occur if there was some sort of intervention to the machine by an outside actor that the machine is currently configured and is currently certified cannot do that. But if there was theoretically an outside actor given access to the machine.

Douglas Kellner: Or an inside actor.

Peter Kosinski: Okay, an actor, inside potentially, but they would have access to a machine in a manner that would allow them to actually invade the machine with physical devices, with electronic devices to alter the way the machine works to allow this.

Douglas Kellner: You would have to alter the software

Kim Galvin: And the hardware.

Gregory Peterson: And some hardware with the printer.

Douglas Kellner: No, you wouldn't have to alter...

Tom Connolly: You would have to alter the software of the election management system and also the firmware on the machine. You would need to know some of the election information from the EMS in order to know what was being alleged is that I could see your ballot figure out which contest you possibly didn't vote in and then mark a choice for you that you were unaware of and the only way that you'd probably be able to do that would be to know the grid work of the election ballot itself.

Douglas Kellner: Maybe. There are other possibilities.

Brendan Lovullo: The term point of attack I think that is confusing because the point of attack would be getting at the machine. The marking of the ballot is the after effects of changing the software, firmware, and election management system, understanding which ballots are in there whether they be from ED1 or ED20 or ED30 or what have you, being able to then have the system read those and either over mark a ballot or fill in an under marked ballot as it goes through. So, I guess the point of attack at least as I understand it would be access to the machine. The outcome of the access to the machine would be having the machine do things that it's not certified to do. And there's a number of different, like Tom said, things that would need to be changed. The cards that go into the machine. The hash checking of the machine.

Douglas Kellner: Brendan, how do you know that those are the only things that need to be changed when the reports didn't address that? From a technical point of view, how do you know that that's the case?

Brendan Lovullo: Well, in order to change the machine, someone would have to get in there.

Douglas Kellner: How do you know that the election configuration software could not be corrupted to trigger the mode that Gio explained to the Westchester County Legislature allows the ballot to directly go across the printer to the ballot box?

Brendan Lovullo: Well the software could be configured to do that if someone put something in there to change the configuration of the software.

Douglas Kellner: Right so right now the key safeguard that we have in place against that type of attack is the ultimate fact that there is a voter verifiable ballot and we have an audit of the voter verifiable paper audit trail. But if that attack, this attack that we're talking about where the ballot goes across the printer and then directly into the ballot box should take place, there is no voter verified ballot and the audit is now meaningless or has been defeated. So, all I'm asking is that we have our experts review this issue and give us a report that can be reviewed by computer scientists and not by amateurs...

Gregory Peterson: We've had this, amateurs didn't look at this, professionals have looked at this.

Douglas Kellner: No professional has looked at this.

Gregory Peterson: And Mr. Appel, you know we give him a lot of credit, all of a sudden, we call him Professor, in Princeton, and were supposed to believe this guy. Look, the bottom line as far as I'm concerned, this is a tempest in a teapot because what you really have here, what you really have here is a guy walking in past security into a locked room. Excuse me, excuse me I'm here to do a job, and he grabs a hold of the computer physically and he grabs a hold of a flashlight and he goes into a corner some place to not be disturbed for 5 or 6 hours as he grabs his screwdriver, unscrews the machine, takes a look, you can take a look here, all of these little devices here, rips them off, all the security things rips them off, fiddles with his machine, comes back and says, "Ah, I got my thing and it's in there now, I have my little flash drive and I put it in" and you have and he returns the machine. That's one machine in one ED out of thousands of machines in the entire state of New York and we're supposed to now say what, all of our security has been prevented this and that's why we looked at this. Tom's email back in December basically said, no, this is legit, there's no way he can get in there. So, if you can't get in there to do this what the heck are we talking about? It's a tempest in a teapot. In the meanwhile, the name of this company gets besmirched, I think wrongly. I don't think it's appropriate and I'm not carrying anybody's water here. All I want to know is, let's be fair, let's be reasonable, let's be honest. Our procedures are good. Our procedures are solid, and we have every single safeguard that you can possibly put into this thing. It would take, it's like Fort Knox, can you get into Fort Knox? No, it's impossible. No, it's not impossible. If you have the right amount of people, spend the right amount of money you can actually break into Fort Knox and rob it. Would take a lot to do it, Mission Impossible, saw it on television. Same thing here. It can't be done. The likelihood of it being done is miniscule, miniscule and how much of a vote are we talking about here? How many people are going to use this? How many corrupted ballots are we talking about? My understanding is that within the machine the machine counts, correct me if I'm wrong, counts the number of times it uses...

Kim Galvin: The printer engages...

Gregory Peterson: ... the printer engages. So, the printer engages 5 times, there should be able to see 5 in an audit afterwards. If it doesn't you already have your audit you can see that something's amiss. But to me, it takes a phenomenal effort not some blogger with a professorial title sitting in a room playing a game to see let's how we can do this? Can we hack this thing? Can we actually do this? Can we actually create software that I can put on my flash drive if I get near the damn machine, stick it in there, let it go and have the exclusivity of time of 5 or 6 hours to get this done – ludicrous. So here we are discussing something in my opinion that's again a tempest in a teapot. You have people that have put hundreds of thousands of dollars in whatever else in research and so forth to present this to us. You know what if you can look at Dominion you may as well look at every single ballot marking device in the State of New York and question it all because they're all vulnerable.

Andy Spano: Can I speak?

Gregory Peterson: End of speech.

Andy Spano: I appreciate your passion and you know sometimes we even vote together.

Gregory Peterson: A lot of times, most of the time.

Andy Spano: I look at this strictly from a decision-making point of view. And I point this not exact similarity, but you've got to look at this. The federal government, Boeing and everyone certified an aircraft and they went through the process, greater than you can imagine ever in your mind. The plane went down. They went through another process with that saying all kinds of things you said when they went through the process and then another plane went down. Sat back and they said, everything's okay we certified it, even the president initially said. All those planes are grounded now because no one knows what the real problem is. Now going back to each one of the things we did here, the disabled community, someone mentioned that this machine was built for the disabled community okay. I have 5 letters in here from disabled community telling us not to approve this machine.

Kim Galvin: They're form letters.

Andy Spano: Here they are, Westchester Independent Living Center,

Kim Galvin: They're form letters.

Andy Spano: ...Disabled on the Move, Disabled Rights of New York with offices in Albany, Brooklyn, Rochester and I think there's another one. But you get my point. Now what I'm saying to you is in my experience I've made many of these decisions. For every Ph.D. there's an equal and opposite Ph.D. So, I don't have to take anyone's word on this. I'm not saying anything that there's something wrong with this, there's something right with this, this is just poor decision making if we don't do anything, that's all. Now the two guys we're talking about you call them bloggers, that's good. So, the way you characterize a person makes it sound diminishing.

Gregory Peterson: Just on the opposite too, the Professor.

Andy Spano: I understand that, but this is not Rush Limbaugh and Bill Marr talking to you. I wanted to make sure I got a Democrat and a Republican involved, okay. These are two credible people. Georgia Tech you don't get a job there if you're like some lulu. So now I'm concerned. I don't know anything about this technology. I'm concerned; so, what do I say? I say, alright give me some more information. That's basically what we're saying. Let's just send this back say, "Hey look at this thing and send it back to us." Now I have done threat assessments, so I know what this is all about. Do I protect Playland? Do I protect the County Center? Do I protect this, do I put a cop here, do I put a lamp light here so on and so forth and some places 10,000 people a day I don't put anyone there? So, I know you've got to go along and thing, but I have no risk assessment given to me by anyone objective in this whole process. That's all I'm looking at.

Peter Kosinski: Okay fair enough. I mean I just...

Gregory Peterson: Again, that can be done with our people that can be done internally. But all I'm saying with this thing is with all due respect to somebody coming up with a theory that this could happen, again it's something that you must have access to the machine. If there are protocols in place. And let's say for the sake of argument now that those protocols are good, maybe we should look at the protocols make sure that it's safe. If you have it locked away, Andy there's no way that you can fiddle with the machine. And if you can't fiddle with the machine no harm no foul.

Douglas Kellner: You're missing...

Gregory Peterson: What am I missing, it's not on the Internet?

Douglas Kellner: What about Boss Tweed's guy who works in the machine who does the, right now we have in place a system so that if there is an insider who installs malware alright, we have several ways of dealing with that, but the most significant way is the fact that there's an audit. And you mentioned before, "Oh the printer has a counter on it that could be audited" but it isn't part of our audit procedures now. So, if you're suggesting that the remediation or a way of mitigating the threat is to audit the printer counter numbers, then we need to add that to our procedures for this machine. You'll recall that we did add the procedures for this machine we required that there be a certain number of extra machines because it's used as both a ballot marking device and a scanner, when we did the certification because that's something we knew about when we addressed it. All I'm saying now is this is an issue that has not been addressed in our expert reports and I'm asking us to have expert reports come back to us and they may very well conclude that everything that you said is correct.

Gregory Peterson: But what I don't want to do Doug is I don't want to have to see this process start from the *ab initio* (Latin for "from the beginning") because...

Douglas Kellner: I'm not asking for that.

Gregory Peterson: That's good. Because something that can be tinkered with or looked at as Andy said, maybe you want to check to see if there's another procedure that we can put in place, that's fine. But again, again...

Douglas Kellner: That's all I'm asking for.

Gregory Peterson: ...people have to understand that what we're talking about the possibility of doing something to a machine would take getting that machine physically. Now mind you we've got counties all over the state, we have machines all over the state. It would take...

Douglas Kellner: Commissioner with due respect, I don't believe that you know that for a fact and let me just tell you that in every election you have to insert into the machine ballot configuration software alright. Now New York has the toughest regulations in the country on preparation of that ballot configuration software. We are the only state that does not allow contracting out to vendors the preparation of the ballot configuration. We require that that be done by our own officials. But even though we require it's done by our own officials; we can't be sure that every person who does that is doing it in an honest fashion.

Kim Galvin: But the counties do have bipartisan mitigation within their county boards of election.

Douglas Kellner: Agreed, agreed and I think that's very important, but the fact is, is that we neither SLI nor NYSTEC tested to determine whether there is something in the source code that could be triggered by the ballot configuration software to do what...

Kim Galvin: Well they did all say, they did all say that the software is currently configured and certified will not do this and they did also...

Douglas Kellner: No, they didn't.

Kim Galvin: Yes, they did. We have it.

Brendan Lovullo: Yes, they did. The report that was sent out last week did say that.

Douglas Kellner: But they only looked at 10% of the software and they did not look at, 10% of the source code and they did not, there's nothing in here that indicates that they looked at the source code that triggers the printer function.

Kim Galvin: I think every machine then if we failed the certification process, every machine should be looked at.

Douglas Kellner: No, you're missing the point. The only machine, this is the only machine where the ballot passes...

Kim Galvin: The Automark has that ability it's just turned off.

Douglas Kellner: Correct.

Kim Galvin: So, we should test that...

Douglas Kellner: No, because we don't allow an Automark to count ballots. You have to take the ballot out of the Automark and put it in the scanner to be counted.

Kim Galvin: I agree if it's a hand marked ballot you can tell the differentiation between a hand strike and a machine strike. So that's one way to look at the ballots in this machine. And the ballot printer audit between the numbers would tell that the soft code and the hard code was entered to activate the printer to allow it to...

Douglas Kellner: Alright so you agree that we need to amend the audit procedures to require the...

Kim Galvin: I'm agreeing we may have failed here but this company met the requirements of this machine.

Douglas Kellner: I'm not talking about the company. This machine...

Kim Galvin: But you have been.

Douglas Kellner: No, I haven't been. This machine was certified by us. This machine was certified by the EAC. So that's not the issue. The issue is there is a potential security issue that nobody has addressed yet and I'm asking us to address it, to look into it to do just exactly what Commissioner Peterson just said.

Kim Galvin: But understanding to address it you have to get past all the securities and have a bad actor. Is that your point?

Douglas Kellner: See again, you are saying that again I believe without a full appreciation for how secure those features are. In other words, yes, there's a fence but how hard is it to...

Kim Galvin: Those are our procedures that NYSTEC created.

Douglas Kellner: I agree, do you understand that all I'm saying is this is a potential security threat that has not been addressed. It wasn't addressed by the California red team that did their red team threat assessments. It's just never been addressed.

Kim Galvin: Well the red team did say you couldn't really get to the software, but Mr. Poulos would like to add something.

Douglas Kellner: You know, you know, they didn't. They wrote...

Kim Galvin: Except for the one little links line that Tom continues to...

Douglas Kellner: There were 14 threats that the California red team identified and there were mitigations for those threats that were explicitly addressed. And so, all I'm saying is that now I've heard both you and Commissioner Peterson say that the mitigation for this is to audit the printer counter.

Kim Galvin: No, I said that's a way that we could audit it. So, the allegation that you can't tell how many votes...

Douglas Kellner: Yeah, but we don't audit it. So...

Kim Galvin: Yeah, but that's our problem.

Andy Spano: Let me just say, I don't know why we're having this argument. I think this is simplistic. Show it to someone say, these are the things we're worried about, have them give us an answer. If they give us an answer like Greg gave fine, I'll vote for it.

Peter Kosinski: You know Commissioner it's not simplistic in a sense. I think the problem from some aspect is the process has failed apparently because this went through a certification process here. If we don't trust our own certifiers, which apparently, we don't, SLI has been hired by this Board...

Douglas Kellner: So, so...

Peter Kosinski: Let me finish. This Board has hired SLI and NYSTEC to advise it on how to certify voting machines in this state. That's what we've done. And apparently, we're not satisfied.

Andy Spano: So, I'll tell you why.

Peter Kosinski: Commissioner let me finish. I'd like to finish.

Andy Spano: Okay.

Peter Kosinski: So apparently, we're not satisfied with our testing people.

Andy Spano: Right, that's absolutely true.

Peter Kosinski: I get that. So, are you saying we should get rid of them and find someone new to do testing because we don't trust them?

Douglas Kellner: We're asking them to address this issue.

Andy Spano: Obviously not. I'm saying give it back to them to see if these two wacko professors, if you want to call them wacko professors and...

Douglas Kellner: The FAA goes through a huge process to certify an airplane and they find that the 737 max 8 is fine. A crash comes down and they still say wait a minute, we still say the aircraft is safe. The second one comes down and they say, "Well maybe we need to look at this again." And I'm not even suggesting that we hold off certification of the machine, it's already certified, I'm not asking that it be decertified, I'm asking that we go back to our experts and say, "Please address this issue and tell us how much of a threat it is and whether it's been properly..."

Andy Spano: And also, for this same issue to be addressed with the other machines.

Douglas Kellner: Yes, of course, we still have to certify the Express Vote XL which is the only other machine that has this particular issue. Where there's access of the printer to the ballot after it's been verified by the vote.

Kim Galvin: Just one more thing, in this particular instance this machine has been used in 7 states for a number of years and there has been no crash first of all. And secondarily, once you get past.

Douglas Kellner: You don't know that for a fact, either right?

Kim Galvin: Well you don't know that it has so we'll call it even.

Douglas Kellner: Right.

Kim Galvin: But however, if you, if we agree that you can get past the security proposed procedures, the seal placements, all these documents that we come up with, there is immeasurable points of attack.

Douglas Kellner: Correct.

Kim Galvin: So, what good, I mean we can test this one but there's going to be one the next day and one the next day and one the next day.

Douglas Kellner: Actually, look at our regulations again. Our regulations say that all the points of attack have to be identified in the security analysis. But this point of attack was not identified.

Kim Galvin: The point of attack I think that's the differentiation that we have. Our point of view is the point of attack is taking over the machine. Your point of attack is once the machine is taken over or can it spontaneously...

Douglas Kellner: No, no....

Andy Spano: My point is different than both of them. My point is I don't know, I want someone to tell me. That's all.

Kim Galvin: John Poulos would like to say something.

Andy Spano: Yeah, but he's the vendor. I don't mind him saying something, we talked before but he's going to defend his machine, how do I know, for every Ph.D. there's an equal opposite Ph.D.

Kim Galvin: Well he knows more than anyone else in this room right now about this machine.

Andy Spano: I understand so did the president of Boeing.

Kim Galvin: So, you don't want to hear from the vendor?

Jeff Buley: I would like to point out the inherent unfairness of comparing two actual plane crashes to a blog post posting a potential vulnerability of a machine. So, the comparison of Boeing to Dominion is not fair so we should just stop that.

Andy Spano: I'm not going to stop it because I consider voting in the United States as one of the most important acts of a person citizen in the United States and anything that interferes with that act, I want to make sure does not happen.

Jeff Buley: That's fine.

Andy Spano: Okay so don't characterize it that way and let me tell you, one of the things that turned me off is that you personally look at these guys as bloggers, I don't even know them but for you to mention that and characterize them as bloggers.

Kim Galvin: That's what they call themselves.

Andy Spano: Wait a minute, on the Internet is not an appropriate thing to do. You want support I wouldn't do that.

Mr. Buley: Well one is an actual event the other is a theory.

John Poulos: Commissioner may I say a few words just to address that? I actually think that Professor Appel and other stakeholders provide a very important role. It's very different than third party certified test labs. Just the way they handle the information and the way they're selected. I think that my only comment on the Boeing is, I completely agree with you, but I think this is more akin to fears that the 747 has the same problem as the 767 max. I'm an engineer, I just said it so should we test...

Andy Spano: I'm just using an analogy.

John Poulos: No, no, but I think it's a valuable analogy in that we know we have a problem in a completely different system which is the 767 max I have now made the assertion that it's the same company there might be same software in the 747 let's ground 747's to do the testing. So, my perspective on it is as follows, I think that the testing, I think that we complied with the certification. I think I largely agree with Commissioner Kellner's comments that New York has the gold standard for certification and testing. And there are very simple mitigations so my two

comments on this whole topic; when you ignore part of the system and identify one threat and you ignore end number of barriers to get that far, there are immeasurable number of threats. And it's not just isolated to a unit that has a built-in printer; it's also incumbent on scanners as well. The comment that we have the paper audit trail, we'll there's only a 3% audit to 1 and if we allow that level of scenario 1 point of attack on the DS 200 or the ICP if there was unfettered access that no one recognized, and by the way the same unfettered access at the end because you have to undo what you did to not get caught, you could simply add a little printing device to either one of those two scanners and then remove it to effectively do the same thing. So that's why it's not, there's an immeasurable number of threats and the threat was actually specifically raised a number of times through a number of certifications in the holistic view of all of the barriers of the system inside the tabulator and extrinsically outside the tabulator. From our standpoint we have no issue and we have spent some time with the operations group today demonstrating capabilities that I don't think we're really understood that don't require any change that allow you to have that level of audit that nullifies the concern that if all of this terrible thing happened and the machines were accessed without anybody knowing and they were accessed at the end of the machine and it was widespread across many counties and hundreds of thousands of number of machines and both times it went unnoticed, the assertion is that you don't know because of the printed ballots are printed already. But we do have protective counters in place to catch this. So, it's the equivalent of a seal. So, you absolutely know you have a problem and you know that it can't go unnoticed and it's a very simple procedural change frankly to put this into place. My only comment in the entirety of all the systems is it's not part of your certification to ignore half of the system and then identify threats that come up once you ignore half of the system's capabilities. If you modify your certification procedure, I'm sure all the vendors will seek to understand what you're doing and comply, but I don't think it's a difficult thing and I think it's something that your operations group can already do and as I say it doesn't even affect your certification guidelines. That's my point of view.

Andy Spano: I appreciate what you said that doesn't change my opinion on what I think we should do. I actually agree with him. I think that's all this says. We are not decertifying that. We're not taking certification away. We're not looking to decertify there's nothing like that. We're just looking for closure on this issue that's all. And if you're so certain that there could be closure on this issue with that kind of explanation.

John Poulos: Commissioner my only question and I mentioned this to Commissioner Kellner on Thursday is why we are having the same questions on all of the other systems that are currently certified including the Automark that has the auto cast feature that has been certified by the Board even though it's not in use it doesn't matter.

Douglas Kellner: First of all, the auto cast feature is not certified, and it can't be used because there's no way...

John Poulos: And the DS 200.

Douglas Kellner: Wait, wait you just said something John and if you have an open mind you will listen. But what is annoying is you say what I regard is the damndest things like the Automark.

So, in New York how would you trigger that on an Automark so that the ballot could be counted in a way that would affect the election?

John Poulos: Are you talking practically? I don't think you can.

Douglas Kellner: Well that's the point.

John Poulos: I also think the same thing is true with the ICE unit though, practically you can't.

Douglas Kellner: All I want to do is ask our experts that question and have them answer that question and if you're so sure that that's the case then I don't understand why the resistance to asking them.

Kim Galvin: Just in fairness, He agreed, Dominion has agreed to meet with all of those people and do all that before this meeting.

Douglas Kellner: So why are we arguing then? Let's just go ahead and get NYSTEC and SLI to address the issue.

John Poulos: What does that mean address the issue?

Douglas Kellner: Well explicitly what I asked them to do was to supplement their reports with respect to these issues.

Peter Kosinski: I have a response from SLI that was given to us and I think Tom you guys sought this out where they did address this. You've seen it but it's not satisfactory is that what you're saying?

Douglas Kellner: But NYSTEC...

Tom Connolly: They said they did not look at this specific issue. They did say that they thought the likelihood of it being carried out was low.

Peter Kosinski: They said, while SLI compliance did not specifically test to this exact scenario, we did test the ability to modify or change the voting software, firmware, of the device as well as attempting to modify the results after and during the process of ballots being cast.

Douglas Kellner: But since that time, we've had Dominion indicate that there is a mode in the machine to have the ballot go directly from the printer to the ballot box and...

Kim Galvin: No, he didn't. You didn't say that did you?

Douglas Kellner: Gio said that in Westchester.

Gio Constantiello: I can elaborate on that...

Douglas Kellner: Let me finish alright.

Gio Constantiello: Sure.

Douglas Kellner: And NYSTEC has said that these issues haven't been tested. Now remember.

Peter Kosinski: That they know of. They weren't aware of SLI had tested them or not compared to NYSTEC. So, they don't know.

Douglas Kellner: Correct. Now in 2008, NYSTEC which had the same function with respect to the voting machines that were certified in 2008, identified that Cyber which at that time was our independent testing authority was only testing about 1/3 of the actual test requirements and it led to NYSTEC disclosing that information to the EAC and the EAC dis-accredited Cyber which is one of the reasons our certification process was so delayed. And so, we've retained NYSTEC to do these kinds of reviews and all I'm asking is that they look at this and tell us whether or not it has been adequately reviewed. Now NYSTEC gave us another report a few days ago was it Thursday or Friday that identified what they think should be the additional review in order to answer this question.

Kim Galvin: They said the threat was low but if we wanted to add mitigating reviews, mitigating procedures we could. And most of them we could do procedurally without ever looking at the machines.

Douglas Kellner: Well...

Tom Connolly: So, if I may, in looking at some of the things that were mentioned previously. So, Commissioner Kellner mentioned before in our regs it does require that the voting system must be secure against attempts to interfere with correct system operations, the vendor shall identify each potential point of attack and for each potential point of attack the vendor shall identify the technical safeguards in the body of the system to defend against attack and it goes on. And then also in one of our other parts of the regulation it talks about the submitted voting system software does not contain any code procedures or other materials including but not limited to viruses, worms, time bombs and drop dead devices that may cause the voting system to cease functioning at a future time which may disable, damage, disarm or otherwise affect the proper operation of the voting system any hardware or any computer system or other property of the State Board or county boards.

I think that's being asked is did we do our due diligence in making sure that those two things were followed. And in NYSTEC's response from Friday one of the things they had proposed was possibly a complete security source code review if not done already. Now it looks like from what SLI gave us in their findings document from last year that they said they did use automated tools to look at the entirety of the source code but that's the entirety of what they told us in that findings document. So, it's a matter of NYSTEC is our independent security reviewer to look at that source code review to determine whether or not it was done in its completeness which is the whole point of our independent security expert is to make sure that whoever did the testing did the right thing.

Peter Kosinski: So, Tom why did we certify this? You're going back to what you think SLI did or didn't do when they actually did the testing...

Douglas Kellner: We didn't review this issue.

Peter Kosinski: I'm not just talking this issue anymore. I'm talking about, you're saying to me that we don't have confidence based on what NYSTEC told us that SLI is doing a complete review of the source code. Is that what you're saying?

Tom Connolly: What I'm saying is that NYSTEC is pointing out things in their response on Friday that they are unaware of the totality of what SLI did. That's what NYSTEC is saying that's not what I'm saying. What I'm saying simply is as part of what I read in the [NYSBOE Regulation] 6209.6 there was, as part of the documentation that Dominion provided us in the TDP, a threat matrix, which basically is where they innumerate all the different points of attack and how to mitigate those threats. What I think we're looking to figure out was, was that complete and comprehensive? Perhaps the answer is yes in which case great, we're done. And we need to change our procedures or process for some reason because this did kind of like fall through the cracks, then we need to do so. NYSTEC also mentioned the number of mitigating things that...

Peter Kosinski: Why is NYSTEC bringing this up now? Why didn't they bring it up back when...?

Tom Connolly: I can't speak to that...

Douglas Kellner: Because I brought it up.

Kim Galvin: No, no back in December when OGS raised it.

Peter Kosinski: Why didn't they bring this up though when the report was delivered to us by SLI if there's no proof in that report that they reviewed all the source code why didn't NYSTEC raise that with us at the time?

Tom Connolly: Because I think that with regard to the issue that was mentioned by Professor Appel, NYSTEC specifically said that they did not envision that point of attack.

Peter Kosinski: Let's take Professor Appel off the table for a minute. I'm just talking about any particular source code review. You're saying that we expect the SLI to review all source code of any machine that we're going to certify and you're now saying that NYSTEC is saying they're not sure...

Douglas Kellner: Wait, wait, no, no, that's not true.

Peter Kosinski: They're not sure that they did that appropriate view.

Tom Connolly: So, what I'm stating is what's in our regulations for what's supposed to be done to our regulations. So SLI in their findings document stated that they used automated tools in order to scan through the entirety of the source code for certain things. I don't know what those certain things are, and I don't know if they completely represent what was in the threats. I would hope that would be the case and I would hope that they would come back and say we did look for all these things and...

Peter Kosinski: So, they're not reviewing the source code to see if there's any fault within the source code for any reason for any possible problem with our machine. You're saying they didn't focus in on this one issue but that they did do a general review to make sure the source code did not have some sort of malware or Trojan horse or anything else embedded in it to make sure that that was a problem.

Tom Connolly: It would be my belief that they did a general review of the entirety of the source code based on New York State regulations. What I'm trying to figure out is not necessarily the outcome is what are the threats? What are the actual threats? So, Dominion did enumerate a number of them and perhaps that's the totality of the universe we should be concerned with as far as unauthorized access to the EMS system or ability to change the firmware. And there are steps already in place for mitigation. So now we have both NYSTEC who had suggested a couple of things as far as like a hard line power stop so that you couldn't use the printer after the voting system and we also have Dominion here who is also explaining that there are additional things that could be done that perhaps we are not doing already or we're not aware of that might be just additional procedures that we have to start following in order to mitigate this. So, I want to make sure as a Director of Election Operations that my unit is doing its due diligence to ensure the security of these machines is as secure as possible.

Peter Kosinski: But Tom, I had some assurance that when you guys look at a certification that's coming before this board you've done your due diligence before we get it and that we aren't doing this afterwards again where we decide afterwards, we didn't do something in the certification process that maybe we should have done. That's what I'd like to make sure of and you guys apparently didn't do that due diligence is that what you're saying?

Tom Connolly: That falls on me completely Commissioner. If that's the case, then I apologize for not doing our due diligence.

Brian Quail: One of the things that I would point out was when the Legislature...

Peter Kosinski: Well you're putting us all in a bad spot here. We certify a machine. People go out based on that certification to purchase machines, to sell machines, to use machines, if that certification process isn't reliable, we have a huge problem.

Tom Connolly: Agreed.

Brian Quail: The Election Law says...

Peter Kosinski: Bigger than this one issue.

Tom Connolly: Agreed.

Brian Quail: Election Law 7-201(3) though does anticipate the possibility that from time to time information that comes up after the certification process will require a re-examination because they are very complicated systems and sometimes you may miss something. I'm not making light of anything I'm just saying that there are times when the process requires a little bit of a look back.

Kim Galvin: But shouldn't this have been done in December when this blog post was raised and OGS questioned us?

Douglas Kellner: Yeah, and who told me about the blog post in December? Nobody copied me and said OGS has questioned this.

Peter Kosinski: No, in fact the response from our unit was the machine, what he said would not be allowed.

Tom Connolly: The machine that's certified.

Peter Kosinski: Right. That this would not be allowed because it would need to be compromised by a bad actor and additional software installed. So, the response from us was not a problem. Now we're...

John Poulos: Can I say something?

Peter Kosinski: No, no, we're not done. So now you're saying there is a problem.

Tom Connolly: Oh, I don't know if there is a problem, I'm not saying....

Peter Kosinski: But there could be a problem. The problem is you're not able to say there isn't a problem and we're saying back then there isn't a problem but now you're not able to say that is that what you're saying?

Tom Connolly: I'm able to say that 100% certainty I can't tell you whether or not there's a problem.

Peter Kosinski: But you were back in December.

Tom Connolly: I'm still confident of my statement that as certified, the system does not perform that task.

Peter Kosinski: Okay.

Tom Connolly: That's now the issue here. The issue is if I can get past what's certified can I still accomplish this outcome.

Peter Kosinski: But don't we look at those issues when we are certifying that we have mitigation processes in place like nobody gets access to our voting machines unless there's a bipartisan team available to make sure there's nothing nefarious going on. Aren't those part of the protocols to ensure this kind of activity doesn't occur? And aren't those in place now and isn't that what we rely on? I mean I know there's been a lot of pointing at the audit trail and that's fine and we do have that, but we have a lot of upfront mitigations as well which I don't think we're focused on which is you don't get access to our machines just walking in the door. You have to go through a security process. We have bipartisan teams that have to be given access to a machine if at all. We have mitigations that are in place to make sure these machines are not inundated by an outside bad actor and compromised in some way so to act like oh well the only mitigation here is this audit that we do at the end and that's what we all rely on and if that's compromised there's no other mitigation. There are other mitigations and I don't think they're being given nearly enough credit because in my mind we shouldn't be relying on the audit to catch something that happened, we should be preventing things from happening and I think we've done that. We have our Boards are making sure these machines are secure at all times. We were talking about that earlier when we do the early voting that the machines at the end of the night they get locked down. They have to be secured. They have to be made sure they're not accessed by anybody we don't know about. These are all in place now. That's what meant to mitigate all that stuff.

Andy Spano: Nothing works perfectly.

Peter Kosinski: Of course, not Commissioner, nothing works perfectly.

Andy Spano: Nothing works perfectly and berating him for doing this...

Peter Kosinski: I'm not berating him; I am just raising an issue here that I think...

Andy Spano: I think you are. Look they do a great job but...

Peter Kosinski: Commissioner Kellner is testifying before Westchester County Legislative committee this is like the first, I'm hearing of this issue, it's not brought to me, it was brought to them.

Douglas Kellner: That's not true, I sent you the...

Peter Kosinski: As you were going to the meeting.

Douglas Kellner: ...memorandum. No, I sent it to you the day before.

Peter Kosinski: But I'd like to know about this stuff up front.

Andy Spano: Commissioner I think we're doing more damage to the reputation of the vendor by having this discussion in this way than we could ever do by voting for this particular thing. And I want to apologize to you about that. I really do because I didn't mean it to be this way. If we

had a vote it would have been 2-2 and then we would have done something else. But this is not something to try to “get” anybody. I am not comfortable. I’ve been put here by the people in the government appointed me to make sure I vote the right way in terms of making sure the people are okay when they go vote. So, I’m concerned, you’re not. I don’t mind disagreeing.

Peter Kosinski: That’s not true. That’s unfair.

Andy Spano: No, no, no I didn’t mean you’re not.

Peter Kosinski: I do care. I care about the whole process though.

Andy Spano: I didn’t mean you’re not concerned about voting, I’m sorry. You’re not concerned about...

Peter Kosinski: I am concerned about all of this. I’m very concerned about it. I’m concerned about how it came up. I’m concerned about what it is and whether we’ve addressed it or not. I’m absolutely concerned about this stuff but I’m trying to understand...

Andy Spano: You’re not concerned to the depth that I am about this one issue. You think that it’s very hard to get into this machine and therefore no one is going to do it or ever get to it. I am concerned that that may not be true. I want someone to tell me, not you, not you, not you, I want someone to tell me objectively look, same thing he said, I don’t have to get up and run around but they could get up, they could just say it and I’d be very satisfied.

Peter Kosinski: Now who’s they?

Andy Spano: Whoever the objective people we’re giving this to.

Peter Kosinski: Are you talking about SLI and NYSTEC again?

Andy Spano: Yeah, that’s fine.

Gregory Peterson: You know Andy I’ll tell you something, the reason I did pop up like that and get that excited was because it offended my sense of fairness. I just didn’t think we were being fair to this particular company over an issue that frankly is a real stretch. And you know Tom Connolly is a very bright young man. He’s doing the right thing. He’s doing the right job and if you look back at his email of December 18th, you know what he looked at it and I’m convinced that at the time he looked at it and basically told the state there is no problem here. He was convinced at that point. Certain things have transpired since that time and all of a sudden now, oh wait a minute we’ve got to take a second look. I’m never opposed to a second look. However, again, being fair take a look at this then what are we really talking about here? And I think Bob Warren is here he can take us through the paces as far as the protections that you have on each of these devices. The number of tags on each of them and so forth that you have to get through. If something has to be said or watched at that juncture so nobody can even gain access because obviously this doesn’t happen without an individual gaining the access and opening up the box, one at a time.

Andy Spano: I know what you're saying. Look this is not a standard that we're applying just to one company.

Gregory Peterson: I understand.

Andy Spano: Okay this standard is going to be applied, we're going to ask the same question about anyone else who applies with their machine correct?

Tom Connolly: Correct.

Andy Spano: And the public should know this is not anything to be said negative about the vendor, nothing. This has nothing to do with them. It has to do with the process. And I tell you I would do this on a million other things not only this one. There's more information out there, two credible people credible in my eyes maybe not I don't know but in the eyes of the public yes so consequently we don't live in a vacuum. We should take the comments that we get from the public and other people if we have credible comments and do it. As I said, if these were two flakes off the wall, I wouldn't be saying this.

Gregory Peterson: You may have just said it right there.

Andy Spano: If they were.

Gregory Peterson: They've very smart, that's beside the point.

Andy Spano: But that's my point.

Gregory Peterson: I think that our staff had moved in the direction somewhere along the time to do pretty much what we're saying. They've spoken to the parties, get them in the room, and it doesn't have to be done like the Inquisition what has to be done is take a look at this and are there any vulnerabilities and report back to us.

Andy Spano: What if we give it to NYSTEC and just have an informal conversation with them? Can you do that?

Tom Connolly: We can certainly have conversations with SLI and NYSTEC along with Dominion with any questions.

Andy Spano: Tell them to address this.

Tom Connolly: I think the totality of what we would look at is not just the threats and whether or not we've enumerated all the threats and mitigation strategies, and perhaps we've done that, but I think like I said, both NYSTEC and Dominion have offered additional things that can be done to make the systems more secure, so I think we need to kind of consider that as well. And also to what Commissioner Kellner was saying earlier, if we decide to really make sure that we're dotting all our I's and crossing all our Ts, that we have to figure out some way of

incorporating any sort of counter functionality into a post-election audit these are all options that we would bring before you and you as the Board of Elections would decide what to go forward with.

Douglas Kellner: I'm fine with that.

Andy Spano: I'm fine with that.

Gregory Peterson: I'm okay with that.

Peter Kosinski: So, I'm not sure what we're doing. So, you're going to talk with SLI and NYSTEC to identify any potential issues that may exist with this particular system?

Tom Connolly: So, we will have a conversation with the both of them to determine what information either one might need to provide the other just to kind of make sure that we're confident that everything was done correctly. So, one example might be that we would want to get more details from SLI on the security source code review that they did so we can provide that to NYSTEC so that NYSTEC could look at that and say, yup they did a good job, or they missed this. I don't know, that's what we pay NYSTEC for. In addition, if there's any questions about functionality, we did try to do this last week where we had Dominion on the conference call with NYSTEC because NYSTEC had some questions. We're more than happy to facilitate those conversations going forward. We're more than happy to have conversations with both NYSTEC, SLI and Dominion about any additional steps that we should consider taking which might help them to mitigate this threat.

Peter Kosinski: Okay.

Brendan Lovullo: Is this going to be limited just to this or are we looking at all the machines that we have?

Andy Spano: What are the other issues?

Douglas Kellner: Yeah, what do you want to do?

Brendan Lovullo: I'm just asking we talked about the whole fleet of machines. I just want to know what direction we're going...

Douglas Kellner: If you're aware of any unaddressed security threats for the existing machines, of course, we should be looking at them. None of those have been called to my attention.

Andy Spano: Or mine.

Douglas Kellner: But if there are points of attack that have not been addressed, then we should assess them.

Tom Connolly: But at the very least we would be looking at the same issue with the Express Vote XL since it does share the same paper path with the scanner.

Douglas Kellner: Yes, that's going through the certification process now and so is SLI also the ITA [Independent Testing Authority] for the Express Vote?

Tom Connolly: They're doing the vendors.

Brendan Lovullo: They're doing the vendor source code, yes.

Douglas Kellner: Okay, so they're aware that this is an issue that they should look at with the Express Vote as well as.

Tom Connolly: We will explicitly be making sure that they include this in there.

Peter Kosinski: What's our timeframe here?

Gregory Peterson: I was just going to say, this should be done as expeditiously as possible because I don't think, in my mind, I don't think there is a cloud over any of this. Is there a question? That's one thing. I wouldn't call it a cloud. I'd call it a little drip from the heavens, that's it. So, we have certified these and so forth it remains that way, it's a safe machine certainly can be used with confidence by the voter. The only thing we're going to take a look at is, is there any way that somebody could breach our security measures and get into the machine and do something, and that's a question, fine. Let's them answer that.

Andy Spano: And what is the probability of someone being able to do that.

Gregory Peterson: Right but let them tell us.

Tom Connolly: And not just that but also are there any additional protections that we could put in place that would make it more secure.

Douglas Kellner: Good.

Susan Cohen: My name is Susan Cohen could I just make one quick comment?

Peter Kosinski: You can make one quick comment.

Susan Cohen: I found out about this whole controversy on a Facebook page by a blogger named Jenny Cohen who to me can have a license in nothing and he's spreading fear already. When you hear hack ability, when you hear point of attack and you're a voter and you're seeing it on Facebook the panic has already spread. So, every day that this question looms, you're losing public trust. You're losing the credibility of the State Board. I've been following this Board for 20 years even though you haven't seen me recently. I've been very involved with accessibility. I actually helped Dominion gather data from the disability community that brought those adjustments in the ICE and that's why I'm here today to answer any questions of the work we

did and why those adjustments were made. And I can answer those questions cause I'm the one that worked with Dominion to develop that and their engineers. But what I'm really scared about is the credibility of this Board. I know that you've got very good committed dedicated people in this room who work incredibly hard and all of you care obviously. The problem is the public, because of what's going on in the country, what's going on in Georgia, what's going on in different states now everybody is on alert. I'm concerned that Dominion, who is doing their best, is going to be ruined for every unanswered question we have, and I don't feel that's fair and that is what I feel, this could become more of a public relations nightmare. Because if people are afraid to use the machines, you should have heard the debates I got in with people on Facebook when I was just trying to say, slow down...

Andy Spano: Can I ask you something. Was that the debate you got into with people after we met on this, we just met now.

Susan Cohen: This was up 4 days ago.

Andy Spano: Yeah, but I'm saying it's out there already we can help if we get answers here and we just maintain everything is fine, that's helpful.

Susan Cohen: Well it's helpful as long as it's done quickly.

Andy Spano: We agree.

Susan Cohen: Because every day that goes by where those posts are being read and I've got a whole bunch of posts on my computer, they're calling it "Dieselgate", there's already a name to describe it and they're saying that Brian the new Governor of Georgia wants the image cast ICE because it's easy to hack. That's the kind of stuff that's going out there. New York is the most stringent security measures that I can tell from all my research and we don't want the credibility of New York in danger. So that's what I want to say. So, whatever we can do to mitigate this quickly please let's do that.

Gregory Peterson: Thank you.

Peter Kosinski: Alright. I guess that's the last item on the agenda unless there's something else somebody wants to bring up. If not, we'll adjourn till April 29th I believe is the next meeting. I'll entertain a motion to adjourn.

Gregory Peterson: So, moved.

Andy Spano: Second.

Peter Kosinski: All in favor?

(All 4 ayes).