

# \*\*\* NOTICE OF PUBLIC MEETING \*\*\*

## INFORMATION TECHNOLOGY ADVISORY BOARD

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**LOCATIONS:**

Legislative Counsel Bureau 401 South Carson Street Room 2134 Carson City, Nevada 89701	Grant Sawyer Building 555 E. Washington Avenue Room 4406 Las Vegas, Nevada 89101
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**DATE AND TIME:** August 23, 2018, 1:00 p.m.

Below is an agenda of all items to be considered. Items on the agenda may be taken out of the order presented, items may be combined for consideration by the public body; and items may be pulled or removed from the agenda at any time at the discretion of the Chair.

### MINUTES

#### 1. CALL TO ORDER and ROLL CALL

**Chairman Diflo:** Good afternoon, everyone. This is Paul Diflo. I'd like to call the June 6th -- I'm sorry, this is August 23rd ITAB Meeting to order. I'm going to ask Leslie to take a roll call, but first I'd like to introduce our newest Board Member, Krupa Srinivas I don't see her. She should be down there in Vegas.

**John Hambrick:** Yes, Mr. Chairman, she's here.

**Chairman Diflo:** Okay, very good. Krupa, would you mind just introducing yourself and giving us a little background? Thanks.

**Krupa Srinivas:** Thank you. Good afternoon, everyone. My name is Krupa Srinivas, and I'm pretty excited to join this esteemed crew. We run a small health care IT company in Las Vegas. We've grown to be about 30 people here in Vegas with additional team members elsewhere, pretty excited to finally have the opportunity to contribute towards our own local community. So, thank you again.

**Chairman Diflo:** Well, thank you. We welcome you on the Board. With that, I will ask Leslie to go ahead and take a roll call.

**Leslie Olson:** Assemblyman Hambrick?

**John Hambrick:** Here.

**Leslie Olson:** Senator Denis? Chairman Diflo?

**Chairman Diflo:** Here.

**Leslie Olson:** Director Cates? Director Whitley?

**Director Whitley:** Here.

**Leslie Olson:** Director Malfabon?

**Director Malfabon:** Here.

**Leslie Olson:** Ms. McGee?

**Sherri McGee:** Here.

**Leslie Olson:** Mr. Betts?

**Craig Betts:** Here.

**Leslie Olson:** Mr. Marcella? Ms. Srinivas?

**Krupa Srinivas:** Here.

**Leslie Olson:** Chairman, we have a quorum.

**Chairman Diflo:** Thank you, Leslie.

2. PUBLIC COMMENTS (*for discussion only*) – No action may be taken upon a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action may be taken. Public comments may be limited to 3 minutes per person at the discretion of the Chair. Comments will not be restricted based on viewpoint. The Chair may, at its discretion, hold this agenda item open in order to receive public comments under other agenda items.

**Chairman Diflo:** That will take us directly to Agenda Item No. 2, which are the Public Comments. So, I'd like to go ahead and start in the North. Are there any public comments here in Carson? Seeing none, I will ask are there any public comments in the South?

**Assemblyman Hambrick:** Mr. Chairman, we have no public attendees.

**Chairman Diflo:** Thank you. We'll go ahead and keep this item open, though, until Agenda Item 13.

3. CHIEF, POLICY & COMMUNICATIONS AND CHIEF, ENTERPRISE ARCHITECT INTRODUCTIONS – Michael Dietrich, State CIO

**Chairman Diflo:** So, go on to Agenda Item 3, and I'd like to ask the State of Nevada CIO Michael Dietrich to introduce two of his new EITS staff members.

**Michael Dietrich:** Thank you, Chairman, Members of the Board. Michael Dietrich, State CIO for the record. It's my pleasure to announce that this is part of the ongoing and developing state strategy which we're calling the Road to Unity, which is a coordination of

efforts across our technology initiatives, plans, and business needs to most effectively -- cost effectively meet the needs of the state. And in support of that, it's my pleasure to announce a couple of positions, a couple folks that have just joined the Office of the CIO. These are not new positions. They actually existed prior to my joining, and the folks that were in those positions had resigned. And so we took the opportunity to kind of redefine what the positions looked like. So, I'd like to, with your permission, take the opportunity to kind of talk about the positions themselves as well as do the introductions.

**Chairman Diflo:** That would be great.

**Michael Dietrich:** Thank you. So, first of all, we have -- and we'll kind of go in order of joining. We have a position that is now defined as the Chief of Policy and Communications, and that's the official title that we are taking to this upcoming session to ratify that title, but really, the unofficial title I like to call is our brand ambassador, and the kind of interface -- one of the interfaces between the EITS Agency IT Services, the Office of the CIO, and our customer agencies and will be functioning in both an oversight role of making sure that across all of our projects that involve our customer agencies, that lines of communication stay open, and this is unofficial as well as official communication.

So, we have official communication vehicles, such as all agency memos which we send out to inform of decisions such as the Office 365 plan to have all agencies safer couple on that technology by the end of the upcoming biennium. So, those all agency memos, those official communications, as well as assistance with updates to official policies such as NRS, NAC, et cetera, will be handled by this role, and joining us in this role, I'd like to bring up to the table Jessica Hoban, if you could join us. And if you could let us know a little bit about you.

**Jessica Hoban:** Okay. Okay, do I have to say for the record? My name is Jessica Hoban. I moved to Nevada in January of 2009 and shortly after began my career with the State of Nevada. During that timeframe, I have spent a little more than seven years working with Health and Human Services in various roles and divisions and two years with the State Public Charter School Authority, and I am very excited and eager to fulfill my roles and expectations as the Chief of Policy and Communication under the Office of the CIO.

**Chairman Diflo:** Welcome aboard.

**Michael Dietrich:** Michael Dietrich for the record, and Jessica, thank you very much for the intro, and we are super excited to have someone with Jessica's experience. And also kind of beyond the policy and communications role, she's been doing a wonderful job helping us with preparing the budget package and making sure there's a high level of quality and consistency and accuracy in the things that we're submitting there. So, we're super happy to have Jessica. The second role is following along the same theme, but it's leaning toward more of the technical side, and this is an Enterprise Architect that will be looking across all of the projects, similar to Jessica's role of -- the Chief of Policy and Communications role of ensuring that all of our technology portfolio, how we are supporting agencies as well as any relevant agency initiatives that tie into what is happening in central IT. Those are communicated well.

The Enterprise Architect role is also going to be looking at all of those projects, and the goal with the role is to identify synergies where possible where we can accomplish things through economies of scale. And I don't want to -- you know, I'm going to be presenting the Road to Unity in more detail in a bit, but one of the key components to Road to Unity, if you will, is understanding that every agency in Nevada is on its own technological arc.

There's levels of advancement, levels of maturity that differ from agency to agency. It's important to recognize that, but also to create over time a more unified approach to look at these inflection points that occur, such as equipment reaching its end of life; it's time to replace an aging solution with a new solution. And when those things happen, having these critical conversations that are led by Jessica and David and ensuring that we are, wherever possible, making decisions that are for the good of the state and can take advantage of some of these economies of scale. So, also, very excited to announce David Axtell in the position of Enterprise Architect. Dave, if you'd like to join me?

**David Axtell:** Good afternoon, Mr. Chairman and Board. Let me say I'm really excited about being here and looking forward to following the path of bringing more technology in that will benefit the state and be a cost-conscious, hopefully, path to the future. My background started in the late '70s in software as a programmer, and from there, I migrated to management and program management and have managed many programs throughout my career from small, a couple of \$100,000 programs to a \$1 billion program which was a cable and Telco television initiative that hit most of the Telcos in the western United States. And I was involved as the software program manager for DIRECTV when it first came up, satellite system. Most people are probably familiar with that and many other similar types of technology programs, and so in my role as program manager, or architect for these initiatives, it was very clear to me that there were very varied types of interests that were involved, and I found it fascinating and fun and exciting to try to find the best way to bring all of the different motivations and the different drivers together so that they could be harmonized and we'd get the maximum benefit from everything.

So, I'm very much looking forward to seeing how we can -- how I can help bring value to technology for the state and ensure that technology is appropriate and has the depth needed, where needed, and at the same time doesn't go overboard where it's not needed. So, I'm very excited. I would welcome any questions, happy to take any questions you have for me.

**Chairman Diflo:** Any questions for David? No. Thank you for sharing your background, and welcome.

**David Axtell:** Thank you.

**Michael Dietrich:** Thank you.

#### 4. COMMENTS BY THE CHAIR (*for discussion only*) – Chair, Paul Diflo.

**Chairman Diflo:** Okay, let's move on to Agenda Item 4, Comments by the Chair, and I'll ask your forgiveness up front in the event that these comments sound familiar, but I wanted to take this time to remind us again about the ITAB purpose and mission. Just one of the reasons the ITAB was formed was to put together a group of IT experts that can advise, provide feedback, and even recommend actions to assist EITS in process improvement and service delivery, cost efficiencies, and we're also enabled to endorse proposals presented to

us by EITS. As the state's new CIO is taking EITS in a new direction and we're entering a new legislative session, this is just a timely reminder of the value ITAB can bring to help them meet their objectives. So, today, we're going to have the opportunity to offer feedback, advice, or even endorse on Agenda Items 9 and 10. State of Nevada CIO Michael Dietrich will present one of the proposed components of his Road to Unity program, as he mentioned, as part of Agenda Item 9, and then we'll be discussing the NCJIS modernization preliminary findings in Agenda Item 10. And I know --

**Assemblyman Hambrick:** Mr. Chairman?

**Chairman Diflo:** Yes, sir?

**Assemblyman Hambrick:** Senator Denis is in attendance.

**Chairman Diflo:** Oh, thank you. I know they welcome the Board's feedback on both items.

5. APPROVAL OF MINUTES (*for discussion and possible action*) – Chair, Paul Diflo.  
Discussion and decision to approve minutes of the meeting on June 6, 2018.

**Chairman Diflo:** Let's go down to the Approval of the Minutes. If I can get a motion to approve?

**Director Malfabon:** Rudy Malfabon. I'll make a motion to approve the minutes.

**Chairman Diflo:** And a second?

**Craig Betts:** Craig Betts. I second.

**Chairman Diflo:** So approved.

6. ITAB COMPOSITION & PURPOSE BILL DRAFT REQUEST (*for discussion and possible action*) – Michael Dietrich, State CIO

**Chairman Diflo:** And that'll go to Agenda Item 6. If you recall from our June meeting, it was decided to defer any motion to endorse until today's meeting. That's going to give everybody a chance to better understand the BDR, which I believe everybody had. So, I'd like to ask Michael Dietrich to come up and give us a quick reminder. I think he's got some highlights that he's going to go over on the BDR so that we can discuss this as a Board and take the possible action in the form of a motion to endorse. Michael?

**Michael Dietrich:** Thank you, Chairman Diflo. Michael Dietrich for the record. So, you should have in your packet a copy of the BDR that is actually in NEBS, has been submitted as seen, and for those of you that aren't familiar with how this process comes about, as I was previously unfamiliar with how it works, coming up to speed. So, we had submitted our proposed BDRs for approval by the Governor, the Office of the Governor, and this one is something that -- both this one and its companion BDR, which is the composition and purpose of the ITSPC, or IT Strategic Planning Committee, these two together kind of

redefine the purposes of these conventions and also states the purpose which -- thank you, Chairman Diflo, for those opening remarks about the purpose of this meeting. And just as a preface to both of these -- and I speak -- even though we're talking about the ITAB BDR today, I speak of both of them kind of synonymously because you'll see that there's some changes in ITAB that will also affect ITSPC, but in general, it's to make sure that both of those sitting bodies are extracting the most value out of them, and that's really important to me.

I know that we are all very busy people, and we appreciate the service on these boards, but when you take time out of your schedule to contribute to these things, I think we're all keen on what does the value add of our collaboration and attendance in something like this, and that really is the most important thing that we are looking for with the IT Advisory Board, and that is to take the varied opinions of not just those at the state who are looking for solutions to meet business needs, but also the considerable expertise of those in the private sector that may have a whole new perspective on what cutting edge technology looks like, may be able to offer advice and other feedback to help us with the process. And that's what I, as CIO, am looking for from this group.

The composition change, the first section, which is highlighted in yellow, 242.122, you'll notice that one of the big changes is that no agency-related members would serve on the ITAB going forward if this is approved. Now, the reason that's important to talk about ITSPC in the same vein is that is really the internal group of the business leaders who are the directors of the agencies, and they are the ones who are interested in and we are interested in that collective group, making sure that we correctly rank and select solutions that work for each of the agency's business needs, which, of course, are the primary drivers for selection of technology.

That group is, as I said, comprised of agency directors. So, the Directors on this Board who would actually -- those positions would be redefined to be industry people. That group still has that voice on ITSPC, and ITSPC is also being redefined to be -- to meet more frequently to have a clearly stated set of goals and objectives and not just be a convention every two years just ahead of the budget cycle.

For ITAB, we are recommending the changes so that we have the no-agency-related members serving in the capacity on this Board; however, we are changing from two to four persons who represent the information technology industry, and I believe that that is going to be one of the most critical changes and one of the most important avenues for having -- to bring in new ideas and feedback from folks who are experiencing different technological solutions, different deployments into this group for advice and discussion.

Also highlighting the Section NRS 242.124, these are kind of administrative changes, if you will, but it does change the role of the CIO to be the -- kind of the conduit for some of -- as I was speaking of earlier, I'm here to receive this information and to make this a valuable meeting of the minds, if you will, and the CIO is more clearly defined -- the role is more clearly defined as the person who is going to receive this advice and kind of take that back on behalf of the central group of folks doing the strategic planning for Central IT, things like Road to Unity, back to take these ideas into action. That is the summary of the relevant

changes to the ITAB composition and purpose by the way of the BDR, and I would be happy to take any questions that you have about this.

**Chairman Diflo:** For the record, Paul Diflo. So, Michael, regarding the changes in composition to ITAB, really, what it's sounding like is by removing the agency representatives and adding some IT experts from the private sector, you have membership that does not have a vested interest in their own solution. So, we're not really a biased Board at that point. Seems like an advisable idea.

**Michael Dietrich:** Michael Dietrich for the record. That is absolutely correct. Not only bringing in those fresh ideas, fresh perspectives, but also an unbiased look and also recognizing, as I said, that we do need to have that convention of decision makers which is biased towards meeting the needs of their individual businesses, and that would be strengthening the ITSPC. And those folks who would not be sitting in this Advisory Board would have that voice in ITSPC. That is correct. Thank you.

**Chairman Diflo:** Of course, you're not taking their voices away. You're putting them in a more appropriate spot to voice their opinions in a more operational functioning Board. Thanks. I know we have a few other questions.

**Director Malfabon:** If I may, Mr. Chairman. Rudy Malfabon for the record. The change eliminating the directors of some of the agencies was -- when I ran it by our staff, was our IT Chief and Head of Administration, this was the portion that they had the most concern with. They felt that it -- you know, it is an advisory board. There is some outside representation, outside of state agency's representation on it, but definitely, they were concerned with the -- having the people that are served by EITS, if they're not on this when they're on the other committee, I understand that, but that seems to be selecting major projects and initiatives. And I think that our staff at NDOT are concerned because we are one of those agencies that's further ahead of other state agencies that are -- and primarily, a lot of it has to do with the funding mechanism. We're state highway funded versus general fund. We have the oversight of our Transportation Board, others taking their contracts through a different board of the Board of Examiners, but there was definitely a lot of concern from staff that they would like -- that the end user, the customers having a voice on this Advisory Board. So, I just wanted to mention that that was our staff's concern, and that was both from executive level and kind of the head of our IT department as well.

**Michael Dietrich:** Michael Dietrich for the record. Thank you, Director Malfabon, for the feedback on that, and it certainly is understandable, wanting to have a voice in this group. The idea is that the feedback -- the critical importance of having outside agency feedback to assist us with making decisions is important but receiving that -- the Board receiving that and me receiving that in an unbiased manner is also critically important, and there are other avenues for that representation and feedback.

For example, we are going to have a project that is going to be presented later on in the Agenda which is an agency representing some of their needs and some of the complexities around that and their path forward and soliciting the Board's feedback. And, you know, unfortunately, these bodies cannot have an unlimited number of members.

So, I do know that Director Cates was making the changes based on having that right number, wanting to bring in those industry experts, but also needing to accommodate that right number having to make some changes to other positions. But thank you very much for your comments.

**Sherri McGee:** For the record, Sherry McGee. Looking at the bill draft request and the changes, I just had some questions about the local government sitting on the Board. As you know, local government is also a client of yours as well. So, can you describe to me how you see their representation, if not at all on the ITOC or the Strategic Planning Committee, whatever is going to be named. I haven't seen that BDR. So, I'm kind of curious, that government customer sitting on the Advisory Board and if they're going to be represented on the Strategic Planning Committee.

**Michael Dietrich:** Michael Dietrich for the record. Thank you for the question, Sherry. To make sure I understand correctly, it's how would we -- so, I just spoke of that need for unbiased opinion, and therefore, the removal of agency directors from membership, but that the inclusion of local government could create bias; is that correct?

**Sherri McGee:** I was just wanting to see your perspective of their role, you know, because they are a client agency just like the other internal agencies are. They're a customer of yours, and then how will they be represented as being a customer in the strategic planning portion of what you're doing?

**Michael Dietrich:** Michael Dietrich for the record. The involvement of the local agencies as a customer is, at least in the way I see it, is quite a bit different than the agencies that we directly support. There are certainly statewide policies that have a follow-on effect to those local governments, but the topics for discussion in this forum as well as in the ITSPC are strictly focused on the agencies that we support as well as the central services that EITS provides. And so there is a delineation, and also our budgets are quite, you know, interlinked, unlike some of the -- unlike all of the local governments. So, having their perspective and asking those folks to represent and bring to this group similar feedback and expertise as the professionals from private industry is important for the sake of discussion and good decision-making, but they wouldn't be specifically speaking toward any of their projects or initiatives, which would not be within the purview of this group or the ITSPC.

**Sherri McGee:** And that's including the network that they ride on sometimes with the criminal justice links and things like that.

**Michael Dietrich:** Michael Dietrich for the record. That is a good distinction that the network and some of the message switches for that type of information, but again, it's one layer removed from the actual discussion of whether or not a specific initiative or project would be ranked compared to others in the convention of -- speaking, like, ITSPC, in the convention of all of the agencies within the executive branch, for example.

**Sherri McGee:** For the record, Sherry McGee. Just keep that in mind, because some of those projects might affect the local entities as well.

**Michael Dietrich:** Michael Dietrich and thank you for mentioning that. It definitely will, and also, a good thing to be aware of when we have these meetings and we're getting that feedback from those folks, and that would certainly be one of the benefits of having these conversations, is to be even more aware of those things. So, thank you very much for raising that.

**Sherri McGee:** Thank you.

**Chairman Diflo:** Do we have any other questions? I want to make sure we exhaust all the questions before I ask for a motion to endorse.

**Jeff Menicucci:** Mr. Chairman?

**Speaker:** Mr. Chair?

**Jeff Menicucci:** I don't mean to step out of my role here, but it might be appropriate to ask for some clarification on the number of members on the newly to be constituted ITAB. I was referring specifically to subsection F, which starts by announcing five persons to be appointed by the Governor, three representing a city or a county in the state, and it looks like four representing industry. So, I'm not sure if I'm reading that correctly or if the numbers don't add up. This is in 242.122.

**Michael Dietrich:** So, Michael Dietrich for the record. That is a very good question, and thank you, Alisanne for joining me, who helped with this document.

**Alisanne Maffei:** This is Alisanne Maffei for the record. The number we changed was four, and it would appear on this BDR submission they didn't yet catch it. That'll be seven for F, and when the LCB legislative group goes through to actually mark this up for review, that would be caught. And if you read the green notations that we added, it's clear that we're recommending the composition be increased to the green four -- excuse me, to the blue four. It was crossed out red, and then that number five under the F just hasn't been changed yet. Thank you.

**Chairman Diflo:** So, then is the -- this is Paul Diflo for the record -- the total 14? The total is seven. Okay.

**Alisanne Maffei:** Alisanne Maffei for the record. The F will be changed to five, but under it, the one and the two are subbed together to make that number.

**Chairman Diflo:** Got it.

**Alisanne Maffei:** So, the three people from the city and county and the four people from the industry would total.

**Chairman Diflo:** Total of seven. Okay. Thank you. Are there any other questions?

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Yes, sir.

**Senator Denis:** Senator Denis down in Las Vegas. I was going to ask that same question so I was clear, and the other members stay the same, correct? So, in the section -- I don't know what that is, two, sub 1 maybe, where it talks about the Senate and the Assembly ones, and then is there others that are on there besides the seven new ones or the seven expanded ones?

**Michael Dietrich:** This is Michael Dietrich for the record. Just, Senator Denis, just to clarify, you're asking about the entire composition or just the sections that were --

**Senator Denis:** Correct, the entire composition. What would that be?

**Michael Dietrich:** If I could call Alisanne to --

**Alisanne Maffei:** Alisanne Maffei for the record. In actual top category, they have the one Senate membership, one Assembly membership. Then down below we have the five in total appointed by the Governor, which are the three from the city and county and the four from the industry.

**Senator Denis:** So, that would be the seven appointed by the Governor, right?

**Alisanne Maffei:** Yes.

**Senator Denis:** Isn't that the discussion we just had? So, it would be nine total?

**Alisanne Maffei:** Nine.

**Senator Denis:** Perfect. Okay, great. And then the other question I have, Mr. Chair, is did anyone have any discussions at all with the industry folks to make sure that we're going to be able to do that, because I mean, I think it's a great idea, but what we don't want is to just have it and then they're not able to provide enough people, so we end up -- they end up not coming in. Then we don't really get that expertise. Has anybody had those kind of discussions?

**Michael Dietrich:** Michael Dietrich for the record. I actually have been speaking with some of my colleagues in the industry and in the northern Nevada area, and there is quite a bit of interest to serve on this Board, no commitment so far. Obviously, I haven't taken it that far since we haven't officially changed the composition of the Board, but in general conversation, I found and I felt that there is quite a bit of enthusiasm around being able to take industry expertise to the state in this capacity.

**Senator Denis:** Okay, and like I said, I think it's a great idea, and I think when the bill comes up, it's good to have those industry people there to testify on why this is important. And I know that down here, we have an IT group made up of industry people that probably would be interested in this. So, I just want to make sure that we had -- at least we just have to make sure that there was -- that they weren't totally opposed to it as we move forward. Thank you.

**Chairman Diflo:** For the record, this is Paul Diflo. I did not initiate any conversation in the industry, but I have been approached by several -- well, three of my IT colleagues from IGT and employers, because they're aware that I'm on this Board, and they expressed an interest of becoming part of it. So, I know there's interest out there. Any final questions before I ask for a motion to endorse?

**Director Malfabon:** I have one more question, Mr. Chairman. So, I think that I spoke about, you know, possible conflicts. I think the answer was they would disclose that as a Board Member, let's say, in the case of an industry representative on this Board. Have you thought about any language to be added to this bill draft that addresses that specifically about that they -- it would preclude nomination to the Board or consideration for the Board if they are currently doing business or is that something that is too limiting as far as Board membership, because, you know, the Chairman mentioned, you know, a company that doesn't typically work for the state in that capacity and that they're very knowledgeable about IT issues, but have you considered anything about conflict of interest or restrictions to something that would be considered prior to being nominated as a Board -- being considered as a Board Member?

**Michael Dietrich:** Michael Dietrich for the record. That is a very good question. Thank you, Director Malfabon, and it is something that we've had quite a bit of discussion about, and I think you make a good point that it could be limiting to say that someone, you know, by way of a relationship with the State, like, for instance, someone that was an industry expert at Microsoft coming onto a Board like this. And I feel personally that as long as it's disclosed and it is made known the person's role, and through that disclosure and through that awareness, there is any avoidance of impropriety, like, you know, this isn't a sales meeting, for example, but that we would not want to limit the membership of someone with that level of expertise if they were to be able to bring that in an unbiased manner. Now, that is the opinion of the Office of the CIO and also in discussions with Director Cates, which is why it was not included, but certainly would take additional feedback from this group of experts on that matter.

**Chairman Diflo:** I'll ask one final time if anybody else has a question. Then I would like to ask for a motion to endorse -- or motion to take a vote on endorsement. Okay, to be clear for the record, guidance from our legal counsel. We would ask for a yay or nay vote from everybody.

**Director Whitley:** This is Richard Whitley. I make a motion to take a vote.

**Chairman Diflo:** Can I ask for a second?

**Sherri McGee:** Sherri McGee. I second.

**Chairman Diflo:** Thank you. Leslie, let's do this like we do the roll call, individually, and we'll ask for a yay or a nay to endorse, yay meaning yes, I vote to endorse, nay, I'm not endorsing. And that way, we'll have it on the record, everybody's vote.

**Leslie Olson:** Assemblyman Hambrick?

**John Hambrick:** Yay.

**Leslie Olson:** Senator Denis?

**Senator Denis:** Yay.

**Leslie Olson:** Chairman Diflo?

**Chairman Diflo:** Yay.

**Leslie Olson:** Director Whitley?

**Director Whitley:** Yay.

**Leslie Olson:** Director Malfabon.

**Director Malfabon:** No.

**Leslie Olson:** Ms. McGee?

**Sherri McGee:** No.

**Leslie Olson:** Mr. Betts.

**Craig Betts:** Yay.

**Leslie Olson:** Ms. Srinivas?

**Krupa Srinivas:** Yay.

**Leslie Olson:** We have six yay's and two no's.

**Chairman Diflo:** Thank you, Leslie. We will make a note that the Board endorses the BDR.

**Michael Dietrich:** Thank you, Chairman, Members of the Board.

7. UPDATE AND STRATEGIC INITIATIVES – *(for discussion and possible action)* - Patrick Cates, Director, Department of Administration

**Chairman Diflo:** Okay, that'll take us down to Agenda Item 7, and this is normally done by Director Cates, but playing the role of Director Cates today will be Michael Dietrich. So, Michael, if you want to give us an update on the strategic initiatives, that would be great.

**Michael Dietrich:** Thank you, Mr. Chairman, Members of the Board. So, this summary that you have -- we're looking at this page here, this is actually -- has made its way through the process of both stack ranking as well as selection and elimination of projects. So, it's a much

cleaner, much more refined list from the one that you saw at the last convention of ITAB, and it is in stack rank in order of priority.

And I just wanted to give a quick update on where we are at with this, and as many of you know, we are nearing the end of the budget build, which is due at the end of the month. So, putting together the justifications, the white papers, all of the packages around these, and Patrick wanted -- Director Cates wanted me to mention that after this is submitted, the budget build is submitted, then all of these things move on to the next phase, and really, it's the last time that we will see any of these until the Governor presents what is being recommended for next steps.

In the interest of time, I don't have to go down through each one of them. It's presented in a summary view so that you can see the title of the project, a very brief description, and then you can see that the columns are clearly titled guesstimates on budget as where we are at in this phase of budget build. We have to get our best estimates from our vendors and other support folks to build these numbers. So, this will obviously go into a phase of greater refinement depending on which of these will move forward in the process.

Just providing some highlights on some of these, the SMART 21 project, which is our ERP, this is now in the statewide RFP, and it's in the release pending phase. Office 365 project, we are moving on to phase two, and some highlights of this, we have established a governance model for Office 365, and this is going to take two layers, and this is -- I think this is one of the -- an illustration of one of the changes that's being made to a project like this, and considering governance around the project as equally as important as technical implementation, technical excellence, because something like a statewide implementation of Office 365 obviously has a lot of moving parts. And similar to some of the discussions that we're having about the disparate needs, different needs of agencies, there needs to be some common governance framework that meets the needs of all the agencies, but also controls cost, controls change, and ensures that the core solutions are stable and keep running.

So, the governance committee will have both a working group which is comprised of the folks at each of the agencies at the IT level that will be supporting the solution, and we'll also have -- we are proposing in the upcoming ITSPC October 30th, we're proposing that the executive steering group for Office 365 governance be comprised of a subset of ITSPC members since it's known that the decision-makers for Office 365 should be that same group of business leaders and those with their finger on the pulse of the needs of the business that would then drive high-level decisions, any type of tiebreaker type of things, if you will, that were happening at the working group governance level would be raised to the executive level for decision and then moving back down into the execution of whatever the decision is by the working group. Any questions on that one?

**Chairman Diflo:** For the record, Paul Diflo. I just wanted to back up to the first one, the SMART 21. I've been involved in some ERP rollouts, and they can go on indefinitely. What's the scope? What modules will that be implementing in the initial statewide rollout?

**Michael Dietrich:** Michael Dietrich for the record. I would defer -- and I don't think there is a representative of the SMART 21 project here, but for that level of detail, I would

certainly like to have the SMART 21 team speak to exactly what modules and what is in scope and out of scope on that project.

**Chairman Diflo:** Understood.

**Michael Dietrich:** So, Michael Dietrich. Moving on to the third item, which is our -- sorry about that.

**Senator Denis:** No, just on that Project 21, I just -- the biennium amount is 44, and it kind of goes along with what we were just talking about. Is that -- how much does that represent of the total project cost or what are the total project costs going to be or does this \$44 million finalize the completion of that?

**Michael Dietrich:** Michael Dietrich for the record. Again, I would enjoy the opportunity to defer to the SMART 21 team for that level of breakdown; however, having seen the total project estimate, I believe that this is a portion of the total project cost.

**Senator Denis:** And do you know how long the process is, I mean, how many years before completion or do we need to ask them that?

**Michael Dietrich:** Michael Dietrich. The project would be -- is scheduled to be completed prior to the end of the upcoming biennium.

**Senator Denis:** Okay, thank you.

**Michael Dietrich:** So, moving on to the cybersecurity budget initiatives, we have a couple of those. The first one is dealing with software, which is the new set of tools to secure the cloud initiatives, Office 365, and our hybrid cloud project, which I will speak about in a minute as well as one that we're really excited about.

This is a concept called bug bounty, and I don't know if anyone has heard of the bug bounty type of activities before. I see a couple of folks nodding their head. This is a crowdsourced approach to cybersecurity. We traditionally have had groups that do penetration testing. They do vulnerability assessments, and it's a natural and important exercise when you have a set of digital assets that you're trying to defend in the best way possible. The best way to know if you're successful at that is to attack it and try to poke holes in it.

Unfortunately, traditional vendors in this space have kind of worked off of a script, and you pay for an engagement that is set in scope, and a lot of times they will make -- they will work to that scope, and it's such that they miss a lot of the vulnerabilities that could exist. The bug bounty kind of unshackles from scope. Vendors such as HackerOne, which is one that we're looking at, they have groups of white hat hackers, which are the good guys, that they employ in a crowdsourced diverse workforce manner, and they basically say, this is our target, and these are the constraints of, you know, what you can't do, because we don't want something really egregious happening. But, you know, feel free to attack this target and report back vulnerabilities. And they actually pay a bounty to each of these folks. That's how they earn a living, is by the more vulnerabilities that they find, the more they make, and this is something that the US Military, Department of Defense has endorsed glowingly. They had a

-- we had a presentation from this group that a Department of Defense analyst gave some statistics which were staggering in that they had encountered several high-level vulnerabilities in the first few hours of their scans that other agencies they had paid many orders of magnitude more, were unable to uncover. So, it's a proven good approach, and it's also very low cost and very cost effective.

I'll cover the second one before I take questions on cybersecurity. The second one is actually a hardware component which replaces our firewall technology. So, as many of you know, SilverNet links all of the state agencies, as well as other agencies, together and is a highly secure managed network. We are very keen on ensuring that there are appropriate levels of border security around this network, which is accomplished by these edge firewalls, and this new firepower firewall technology solution is actually an intelligent anti-malware, anti-spyware software that will catch many of these things at the border before coming in. It is a fairly expensive solution because of the amount of intelligence that has to be built into the firewall devices and the amount of processing power they have to have to accomplish the inspection and analysis and kind of AI-based decision-making around whether or not a piece of traffic is good or bad. And with that, I'll pause and ask if there are any questions about cybersecurity.

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Senator?

**Senator Denis:** Thank you. Just a quick question. So, with both of these items, that would be complete, right? That's a system-wide -- that's not a partial installation, but a system-wide installation?

**Michael Dietrich:** Michael Dietrich for the record. Thank you, Senator. Yes, this would be system-wide. The firewall hardware solution would be guarding the edges of all of SilverNet, and the software tools would cover all of the devices and end points within that SilverNet system.

**Senator Denis:** Okay, thank you.

**Michael Dietrich:** One clarification, though. A lot of these are central tools that analyze traffic on and off of SilverNet. They do not, in some cases, reach all the way out to our customer agencies. We do have some centralized solutions. Well, actually, we do have consistent solutions, such as our Symantec Endpoint Protection, or SEP. That technology was mandated by executive order, and it is being deployed or deployed to all of our agencies; however, we do not have centralized reporting. That is something that we're striving for going forward as part of the Road to Unity. Other solutions, while they analyze traffic on and off of SilverNet, they don't reach all the way out to those agency networks just as a point of clarification.

**Krupa Shrinivas:** Mr. Chairman, for the record, this is Krupa Shrinivas. I have a question around our cadence and frequency on this type of white hat hacker employment to test for vulnerabilities. Would you comment on that?

**Michael Dietrich:** Michael Dietrich for the record. At minimum, we try to conduct these vulnerability scans once per year.

**Krupa Shrinivas:** Thank you very much, and is there a stated cadence at which the vulnerabilities that are detected must be addressed?

**Michael Dietrich:** Michael Dietrich for the record. I would defer to our information security team for this, but we do have service level agreements around vulnerabilities that are based on the rating, so the severity level of the vulnerability. And it's most important to note that a sev zero, which is any kind of vulnerability which would result in the exposure of any information or any other kind of a hole that was identified, those become, you know, true showstoppers, if you will, and all efforts are directed toward resolving those vulnerabilities as soon as possible. So, they take precedent over everything else.

**Krupa Shrinivas:** Thank you.

**Michael Dietrich:** So, moving on to the -- Michael Dietrich for the record. Moving on to the Road to Unity, which is one that you've heard me mention several times and one that I'm personally very excited about; however, I will defer, because we do have an Agenda item on the Road to Unity. So, I will go into detail on that one when we get to that Agenda item.

So, I'll skip forward to enterprise web CMS replacement and another one that we feel is very important, and there's a couple of facets to this. One that is very critical and very important to all of us is some of the efforts around our ADA website and document remediation efforts. There's also an Agenda item for that. So, I will save that for the wonderful presentation you're about to hear on that, but at the fundamental level, the Ektron CMS that we have today is end of life and needs to be replaced. I think that it's important to recognize when we look at replacing the CMS, that we select something that meets the needs of all of our customer agencies, but also consider we do have some agencies that are not in the Ektron CMS currently.

And while there could be some very good reasons why these agencies have their own CMS, it also has hindered some of our efforts to move forward with things like ADA remediation and other activities that would benefit from having a common template, a common dashboard, and access method for all of the state websites. Having these disparate CMS has been problematic. So, we're hoping that part of the initiative going forward will also start talking about bringing more of the non-preferred CMS users, I'd like to say, into that central solution.

**Chairman Diflo:** For the record, Paul Diflo. Michael, do you host your own statewide websites or do you have somebody else host that?

**Michael Dietrich:** Michael Dietrich for the record. It varies by agency.

**Chairman Diflo:** Okay. Thank you.

**Michael Dietrich:** And I would -- if the additional information is about -- good to know about that, I do know that there's some members of the web team that could speak in more detail about the various ways that the sites are hosted.

**Chairman Diflo:** No, I appreciate that.

**Michael Dietrich:** So, that's a great segue into the next item, which is our website ADA compliance tools, and as you'll hear in the upcoming ADA presentation, this is part of that solution. We have this ask for 2021 funding for some ongoing work with regard to ADA compliance. We also have some near-term things that we're looking at, and as I said, we'll have a presentation from Linda DeSantis with more detail around that. The next couple of items -- actually, I'll pause to see if there are any further questions. Sorry, I didn't want to just keep motoring right along.

Okay, the next couple of items, Enterprise IT governance and strategic planning as well as IT procurement oversight, these are the next step, the next evolution, if you will, of the plans within the Office of CIO in partnership with our purchasing department to ensure that we are taking a critical look at the solutions that we want to select across all agencies, as well as ensure that there is a higher level of oversight around our statewide IT spend and set some standards around technology that would be of benefit for all agencies to use.

The first two -- and these are headcount. The first two headcount would actually be within the Enterprise -- the Office of the Enterprise Architect, and these would be solutions' architects that are helping us with that analysis and selection of the right technology solutions and working very closely with the agencies so as we have these conversations where we try to get to commonality, try to get to economies of scale, having some deep dive technical discussions with the IT staff at each of the agencies to make sure that we understand if we were to make these changes, what are the gotchas, what are some of the things that we would need to be aware of as we continue to make our primary objective meeting the needs of the business and taking that back and translating those business needs into technical needs and vice versa to ensure that we're making good decisions as we select new technologies and select ways to implement new technologies.

**Chairman Diflo:** For the record, Paul Diflo. Michael, just one question on that. Actually, maybe clarification. I completely understand the need to manage the procurement, especially of software, and with David, your Office of Enterprise Architect, I'm sure he'll be setting some architecture principles or standards that say you have to meet these criteria in order to be a vendor that we're going to buy. Will you be a gate on the procurement process or will you publish these principles and allow the agencies to purchase their own cloud software, for example?

**Michael Dietrich:** Thank you. Michael Dietrich for the record. Thank you, Chairman Diflo. That's a very good question. As I consider the answer to that question, and it's come up a lot, I try to be very sensitive to the -- again, our primary objective is meeting the needs of the businesses, and we don't want to stand in the way of that. That said, we do need to encourage, gently, and in some cases, more forcefully, the selection of technologies that is for the good of the state and these economies of scale. You'll hear that from me over and over again. And while we don't want to be a gate for everything, because that would be

inefficient, that would actually defeat the purpose, we would be looking across the proposals from many agencies, and for example, several agencies may be looking at similar virtualization technology. And in that case, it would be very prudent to create a solution where all of those agencies can share and as well as have the ability to bring on more agencies as the need arose.

So, while we wouldn't, you know, gate that and say no, you can't do that until everybody selects the same thing, we would certainly encourage those conversations, and this also is a great -- you know, I love scenarios. It's a great scenario-based way to talk about it. The Enterprise Architects would work with the technical teams at the agencies and say, how can we make this work in a shared central solution? And there, of course, are going to be technical challenges around making that happen, but through those conversations, the idea is to arrive at an architecture that does meet all needs and has all of the benefits that we, I think, all can agree on when you build a shared solution.

**Chairman Diflo:** Yeah, thank you for your answer. I think having that Enterprise Architect Office is absolutely necessary in this case. You're going to get so much value out of that.

**Michael Dietrich:** Michael Dietrich. Thank you for the feedback, appreciate that. The other two positions are complimentary to that role, and this was something that we kind of went back and forth with the sit-in purchasing, would they sit in the enterprise architecture team. The idea is that they would sit in the enterprise architecture team, but would be very involved with the purchasing process. This is also -- I would like to call out that both of these were related to audit findings in a recent GFO audit of Enterprise IT Services, which called out that there seemed to be some disconnect between the purchasing department's ability to select technology solutions, without getting the right level of subject matter expertise feedback from EITS and from the agency IT departments.

So, these positions would help create that bridge. They would actually be advisors to the purchasing teams and sit side-by-side with them in the selection process and advise them during the procurement process to ensure that we are closing those gaps of having that subject matter expertise drive the more reasonable selection of a solution, even down to the negotiation process of pricing and some technologies that went -- additional or ancillary technologies that went into the total quote or the total build, if you will. Sometimes those things can get missed if you don't have technical subject matter experts looking at that side-by-side along with the folks whose core superpower is purchasing. So, I'll pause, if there are any additional questions on those positions or those two items.

**Sherry McGee:** For the record, Sherry McGee. This is definitely a great step forward, and I would just hope that out of that office would come more proactive communication out to the agencies on what's going on, what's being procured, pricing, that type of thing. In the past, it's been like a treasure hunt trying to find out that information. So, I'm hoping that that'll improve that process as well. So, thank you.

**Michael Dietrich:** Michael Dietrich for the record. Thank you for your feedback. It's very well taken, and that is -- as you're seeing, there's a theme of these things coming together, policy and communications, enterprise architecture, the folks that support that team, communications being one of the critical pieces of it, and we have heard that feedback that it

would be great if there were statewide agreements negotiated, that those were put out to others that could take advantage of those, absolutely. Thank you.

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Senator?

**Senator Denis:** Senator Denis. Thank you. And no, I just wanted to join the bandwagon on that one. I think anything we can do for transparency on this stuff is great. Having worked in IT for the state for many years, that was always our big complaint, that we didn't always know what was going on, and it seems like this will bring at least transparency so that everybody knows what's going on. So, I appreciate that. Thank you.

**Michael Dietrich:** Thank you. Okay, moving down the list, we're more than two-thirds of the way through it. Thank you for indulging the descriptions of these. We have a telecom pilot. This is also something that I would call one of the next steps on the Road to Unity kind of in an ad hoc way, and we hope to formalize these conversations and processes as we go forward, but in an ad hoc way, we learn that the DETR agency needed to revamp their telephone system.

And in further conversations, they were actually looking at something that we were also looking at for the next gen of the statewide phone system. And of course, that phone system, like many other things across the state, is made of some disparate pieces and parts, and we would certainly like to think about bringing that into one statewide phone system that is comprised of the same technology and it's more sustainable, supportable, cost effective, et cetera.

So, we started having conversations with the DETR folks and are proposing that we actually build a pilot of this system based on Cisco Unified Communications technology for both DETR as well as Department of Administration. And that pilot would serve as not only a proof of concept, but also the way that these systems can be built. It could grow and expand without, you know, ripping out the pilot and replacing it with a production system. We could start to expand that system with capacity to accommodate other agencies if the pilot were successful.

So, moving on to public meetings, CMS, videoconferencing, this is pretty straightforward. This would be enhancing the videoconferencing capabilities across the state, and it's not necessarily building fancy new videoconferencing facilities. It is more looking at what facilities do we have today, are there a -- is there a need for extra facilities, but primarily making sure that these things are equipped properly and supported properly. And I have a lot of experience in this realm of building and supporting videoconferencing systems, and I have found that it doesn't matter how big or small or simple or complex the system is. If there isn't a group that keeps the thing running, it fails, because inevitably, you walk in the room. You push the button that says I want a video, and it doesn't come on, and then you just go figure out something else to do, because you're not going to fix it before your meeting starts.

So, there's three head count here which are two north, one south, which will assist in keeping this technology running smoothly so that the folks who use it and rely on it for their business communication have a good experience.

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Senator?

**Senator Denis:** Yeah, I just have a question on that. So, as we -- I'm assuming we're putting in the latest stuff, and will that give the ability to connect other devices? If you want to include somebody in a meeting that's not in one of our locations, would they have the ability to connect via videoconferencing, you know, either from a laptop or something else? Does that provide for that?

**Michael Dietrich:** Michael Dietrich. Yes, thank you for your question, Senator, and that is a big consideration, and in fact, a lot of the systems that we have are open systems and capable of connecting to some of the other vendors' latest technology as well as, as you say, mobile devices, phones. The solution is not -- that we're proposing is not a full videoconferencing bridge, which would, you know, be that kind of Rosetta Stone that would bridge all of those technologies together, but wherever possible, we would make sure that if a room system had an old codec that was not capable of connecting to newer systems, that piece of it would be replaced so that we would have more of that ubiquity and communication wherever possible.

**Senator Denis:** So, just updating then, the older systems to be compatible with the newer systems.

**Michael Dietrich:** Correct. Michael Dietrich for the record. Yes, and I think that that's -- the older systems are the minority, but we do recognize that there are some of those out there that are just simply incapable of connecting to newer systems, and yes, that would absolutely be the objective with this first attempt -- I don't want to say attempt, but this first phase of modernizing our videoconferencing systems would be to replace to those old siloed codecs with newer ones that were capable of connecting to many more systems.

**Senator Denis:** Great. Thank you very much.

**Michael Dietrich:** Thank you. The next one, the enterprise integration tool is funding for the SMART 21 project, which is to build the interfaces and connectors. As you can imagine, when you pull -- when you move something like SMART 21 away from an old technology into new, an ERP has its hooks into many other external systems, and this kind of goes back to why I would certainly be more comfortable with the SMART 21 team talking to all of the individual modules and the architecture of that system, because it is and has changed the different things that it connects to and shares data with and interfaces with. And it's important that we have funding for the interfaces that replace the connections from the old system to the old ancillary systems, so the new system can continue to interface with all of the pieces that it communicated with before.

I think it's also good to note in this project that there are a lot of -- as the team goes through their due diligence to ensure that the system -- they're actually applying a lot of rigor to ensure that the ERP solution is the correct one, and part of that discovery and rigor is around what of these do we not need to maintain? You know, you can ask a group what systems do this -- would this new system need to communicate with, and there could be a list of a hundred things. And as you start to have those critical conversations with them about the system architecture, it could be possible that some of those things on that list are Legacy, and we don't need to build new interfaces for those systems, which saves us money and reduces complexity.

**Sherri McGee:** For the record, Sherry McGee. I have a question about the integration -- different integration points and who is going to be doing those integrations? Is it going to be the vendor? Is it your group? Do you know the answer to that question? Has it been -- has that been funded, analyzed and funded? Maybe that's for another time when folks are up here to talk about SMART 21.

**Michael Dietrich:** So, Michael Dietrich for the record. Just to clarify the question, you're asking the actual development of the interfaces, who would be performing that work? So, it would actually be a combination of the Agency IT Services team, which does our application development as well as the vendor. So, a lot of the discovery of the interfaces was done before the RFP phase, because some of the -- or the majority of the interface work would actually be within the scope of what the vendor would provide. Thank you.

Next, IT cost accounting software. So, this is a tool -- and there's a few that we're looking at in this space which actually allow us to import our technology spend as well as other spend and model this in a holistic way and help us to make budgetary decisions around the total IT technology budget. It's become a very popular and common toolset for agencies that are managing large technology spend, and there's actually a federal -- I don't want to call it a program. It's a model called TBM, Technology Business Management, which is starting to speak toward the business need to have a holistic view of all of these components within your technology spend and to be able to look across and have a slider that you can move to increase or reduce a spend in a certain area and then see how that would affect your overall budget, so you can build connectors into, say, your telephony budget, your third party network data circuit budget, and be able to have a much clearer view into, you know, where the dollars are going and what changes you could make to optimize the spend.

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Senator?

**Senator Denis:** Thank you. So, I think that's a great idea. I don't know how you -- how do you currently do that? You just have to kind of pull up all the budgets and look at it that way, and this will allow you to then just kind of compare them all at the same time?

**Michael Dietrich:** So, Michael Dietrich for the record. Thank you, Senator. That's a great question. We do have an internal homegrown tool called IGOR, and it is -- it's fairly powerful, and it's certainly for the needs -- what we have done with that up to this point for a homegrown tool, I would say that it has worked pretty well; however, like any other

homegrown tool, it got to a certain point. The person who wrote it moved on, and it's kind of been stagnate since then, where this tool would allow us not only immediately improve functionality, but also, it's a cloud-based service -- subscription-based service. So, it would be continuously updated with the latest and greatest state of the art.

**Senator Denis:** So, if we're having questions, like, during the session on IT budget issues, you'll be able to provide information quicker?

**Michael Dietrich:** Michael Dietrich for the record. If we had it implemented before then, yes.

**Senator Denis:** Yeah. I mean, I'm talking about future, yes. Yeah, I'm not saying necessarily this session, but I know that sometimes when we talk about budgets, sometimes it's really hard -- it's hard to get, just because of the systems that we have, sometimes to get information right away. But when we're running out of time at the end of the session, it's always good to have a tool that can give us that information quickly so that we make good decisions and not hasty ones that we later have to come back and fix. So, I appreciate that. Thank you.

**Michael Dietrich:** Yes, thank you. All right, second to last we have our Office in a Box pilot, which is a 21st century workforce solution. This is a pilot of the ability for workers whose role allows them to do remote and flexed space work to have an office in a box that accommodates that, and this is something that other states have been very successful with. I believe that it was either Tennessee or Kentucky that had implemented a mobile workforce flexed workspace program and had eliminated an entire building and were looking at eliminating another building, leasing them off to a third party, because through this program, they had reduced their office space needs by a substantial amount. We realize that we're just starting on thinking of these concepts.

So, we're starting out small with this one, a small group of users. We're thinking 20-people-ish within the Department of Administration and 20 people outside of that group as the pilot group for this. And then lastly, we have the DPS dedicated staffing enhancement. This is for our Agency IT Services team. Again, they're the folks that provide our application development support, and DPS, Department of Public Safety, is our largest customer of that effort. They are actually part of the EITS central IT group, and this is to keep up with the growing demand for the application development and application maintenance work for DPS, and this is actually being submitted as a kind of a mirror decision unit. So, we are submitting the decision unit for the positions, and DPS is submitting an equal one to fund those positions. And I've made it through the list. So, if there are any questions, I would love to hear them.

**Chairman Diflo:** For the record, Paul Diflo. First of all, I want to thank you for a very thorough description of the list of initiatives that you've got. One quick question. I think I know the answer to this. There's a lot of work here, so there are probably going to be professional services involved in a number of these initiatives. So, licensing, hardware, professional services, that's all included in the guestimate cost; is that right?

**Michael Dietrich:** Yes. Michael Dietrich for the record. Yes, that is correct. In any cases where there is -- the budgeting solution is a great example of that, where that budget includes some financial analysts that will come in and help us import the data from our systems into this cost analysis tool.

**Chairman Diflo:** Perfect. Any other questions for Michael?

**Sherri McGee:** For the record, Sherry McGee. I don't have a question. I just have a comment. What you're doing here is great and a long time coming, and I just want to say thank you for putting this through the legislature, and it's going to be very exciting for the rest of the state as well. A lot of these activities have been going on in the state as another duty is assigned, and it hasn't really gone very well. So, I'm really looking forward to seeing this get funded and seeing what it will do for our state as a whole. So, thank you.

**Michael Dietrich:** Thank you.

**Craig Betts:** Mr. Chair, I have a question.

**Chairman Diflo:** Mr. Betts?

**Craig Betts:** Craig Betts for the record. Are these in prior -- great list, great update. My question is, is this in prioritized order from most immediate need or most significant impact down to least? And I have a follow-on question after that.

**Michael Dietrich:** Michael Dietrich. Yes, it is.

**Craig Betts:** And if all these projects are funded, what kind of timeframe do you think it would take to implement? We've already talked a little bit about SMART 21, and I know we're going to talk about the Road to Unity, but are all of these a 2021 completion?

**Michael Dietrich:** Michael Dietrich for the record. That's a very good question. In many of the cases, these are scoped within 2021, and of course, the start date and the end date will be staggered. Obviously, we're not going to kick all of these off at the very beginning of the biennium and take them all across the finish line conterminously, but they are -- I'm just skimming the list to see if there are any of these that go beyond that. Of course, there are some, like cybersecurity, that's just ongoing. Road to Unity will be ongoing, but the ones that are scoped as a single enhancement that naturally have a beginning and an end, those are scoped within the 2021 biennium.

**Craig Betts:** Great, thank you.

## 8. PROJECT STATUS DASHBOARD – Michael Dietrich, State CIO

**Chairman Diflo:** We will go on to Agenda Item 8, which is the Project Status Dashboard.

**Michael Dietrich:** Thank you, Mr. Chairman, Members of the Board. Michael Dietrich for the record. So, if you recall in our last ITAB meeting, I gave you a kind of sneak peek of the project status dashboard. It was -- that content was actually authored by the gentleman to my

right here, Eric Pennington, and since he has done such a great job of putting this together and maintaining it, we've invited Eric to the meeting to kind of walk us through what we would now call our production version of the project status dashboard.

**Eric Pennington:** Thank you, Mr. Chair, Members of the Board. For the record, Eric Pennington. I'm the Manager of the Project Management Office within Enterprise IT Services, Agency IT Services, and I just did that all in one breath. So, the project status dashboard is part of the Agenda, so you do have copies of that, and I'll go through this briefly. Myself, I'm not a big fan of people reading verbatim what you have in front -- what I have in front of me, but I'll defer to how you'd like me to approach this. There were some changes requested in the last ITAB meeting, and the first of those changes on page three, the Project Health status legend, which is a description of how we describe project health. For green, it's everything is hunky-dory, everything is looking good. For yellow, most health indicators are looking good, but there are some risk areas that warrant monitoring and sometimes mitigation. For red, we're looking at several Project Health indicators below acceptable level and that you're at imminent risk of failure if you don't take corrective action, and I did add blue here as the project is in the final stages of completion and closeout.

So, what we look at when we look at Project Health, we're looking at how we're doing in terms of scope, schedule, budget, do we have adequate resources for the project, and, you know, have we got funding for the project. Before I move on, do you have any questions? No? I'll be reporting on Agency IT Services projects, projects for the state open systems group, as well as the state networking group.

Agency IT Services Project Management Office, we currently manage, monitor -- or participate right now in 37 separate projects or initiatives across -- and it says here six state agencies, but I've only listed five. I believe the sixth one is the Office of the Governor, and we haven't had many projects with them lately. The projects I detailed in this report were either in the prior report. They were specifically requested by this Board or their total expenditures will or have exceeded \$500,000.

Just to clarify, for Department of Public Safety, we have 31 projects and initiatives. I've categorized them as active, being currently in planning or development or we're in production and closeout phases. As initiatives, these are DPS initiatives that are being evaluated. They haven't quite been initiated. We don't have a charter. We haven't identified funding and resources for those, and then proposed would be any new proposals that require DPS to prioritize and allow us to move forward with.

Moving on to page five, this project was requested specifically by the Board in the last meeting. It is the State of Nevada ADA Remediation, and I think -- is that -- that's part of the Agenda for later? So, if you're okay, I'll go ahead and defer that to that part of the Agenda. I'd also like to call out on these specific reports. There were some other items of interest that the Board requested, which was consequences, deficiencies, or gaps if we didn't complete these projects, any dependencies on other projects, and impacts. And those, you'll see, have been included.

On page six, this is a DPS project. It's called the CCH modernization project. It's part of the overall NCJIS modernization effort. This is a rewrite of the computerized criminal history

system and its supported software platform. The old system was written in USoft and is no longer supported. We had to move off of that platform to make sure that we didn't have any catastrophic failures. This contains all of the fingerprint-based data submitted by various agencies across the state, as well as forwarding this data to the Western Identification Network, WIN, and the FBI. It's a very critical system to our citizens' life and safety as well as the officers in the Department of Public Safety.

Right now, the challenges we face on this project is resources. We have limited number of resources. We have a lot of initiatives and projects with DPS. At this current time for this project, resources have been reassigned to AB 579, which is the Adam Walsh Child Protection Act. This was a project that was -- my understanding, was completed on two prior occasions and were put on hold by a judicial act, and we're spinning this back up. So, as far as AB 579, we're very close to finishing that project. So, hopefully, we'll be able to free up some resources and finish what we've got with CCH.

As far as delivery dates, our original delivery date, I'm a little ashamed to say, was July 2017. We did do a partial delivery on May 21st. There are a number of deferred requirements and bugs and defects that we need to get fixed. Are there any questions about the CCH project?

**Sherri McGee:** So, for the record, Sherry McGee. I'm looking at this project and seeing the slippage of schedule and scope and the difficulty with resources and the criticality for the public and wondering why the Project Health is not red on this one. What gave you a call for yellow?

**Eric Pennington:** For the record, Eric Pennington. The reason it's yellow is we've rectified some of the scope issues. We do have a charter that's been signed. They have identified funding for this, and we've nailed down the scope. It's just a matter of waiting for the resources. I don't believe it's in -- there's failure that's imminent. I think we've mitigated those other risks.

**Sherri McGee:** Okay, great. Thank you.

**Eric Pennington:** Moving on to page seven, this is a Department of Administration project. It's called Seamless Docs implementation, and this is to implement a hosted solution for compliance with SB 236, Electronic Forms Bill. The scope of this project is to perform a -- implement a pilot solution with Enterprise IT Services, Deferred Compensation and Purchasing, develop an implementation plan for the rest of the DOA divisions, and to develop and document governance for rolling out the licensing and the solution to other agencies that are interested, and we've got the project in green. We're about a week out from closing this project out. The pilot has been implemented. While we still have some issues with ADA compliance, the vendor's gone back and assured us that in six to eight months, that they'll have that rectified, and I'm reviewing a governance plan for my project manager now. So, we'll be closing this out very soon. And this is my very favorite one.

The next project is the DPS restructured OTIS modernization, and this also falls into that roadmap for the NCJIS modernization. This is a rewrite of the Parole and Probation Division's offender tracking information system. Same issue, it was written in USoft. It's no

longer supported, and it was endeavored to rewrite the entire program in a supported platform.

Right now, the challenge I called out in this particular report is the schedule, and the reason I did that is we're looking at another slip in the schedule. I believe when we reported this in June, we reported a slip of approximately 45 days. Just the sheer amount of work, the inner dependencies between the program's modules, data migration issues, we're looking at -- well, we're evaluating -- right now, we're evaluating a November 1st implementation date, or go live date. I do have this project in red, because all of the signs are there, but we're not ready to call wolf yet. Any questions about OTIS?

**Craig Betts:** Mr. Chair, Craig Betts for the record. You mentioned that this is being rewritten. Is this being done in-house or do you have professional services or a vendor taking care of this for you?

**Eric Pennington:** For the record, Eric Pennington. This program, it's being written, rewritten by MSA contractors under the watch of our application development group. So, yes, it's being written in-house and will be supported in-house.

**Craig Betts:** Okay, thank you.

**Eric Pennington:** On page nine, the project, this is for the Governor's Finance Office. This was a smaller project, but just as important nonetheless. It was the NSHE NEB's interface. Some of you may know that the NSHE had recently implemented their new workday system, and the intent of this project was to automate the interface and transfer a budget data for building the biennial budget, and I've marked this in blue. The solution has been tested out. They had to go back to some manual entry on some of the budget items, but we're getting ready to close it out with the submission of the budget at the end of this month.

For the state open systems group, the focus has been on projects that were approved during the last legislative session. So, a couple of them have been closed, and this report details only those projects that are in progress. And just a real quick disclaimer; the EITS Project Management Office, we are not actively managing these projects, but we're monitoring in terms of so we can report the status on them, with the exception, I will say, of the Office 365 state tenant. That is one that the PMO is managing.

And of course, the purpose of the state tenant is to create that shared infrastructure for all of the state of the Nevada so we're not working off of disparate common tools and to get everybody within a common user identity program. The project has not been without its challenges. Staffing, I believe those have been mitigated. They recently -- the group recently hired one or two individuals to fill out their staffing. Governance, that was an issue, statewide governance and how we're going to use those collaborative tools. I believe the team and the Office of the CIO have come together and then put together a governance document that identifies a committee or a set of committees and how those decisions will be made, and scheduling, certainly, that's been one of our biggest challenges, is getting agencies on board scheduling, but the team has done a good job of putting together a schedule, and we actually have some jumpers on this year. We've got, I believe, a handful of agencies that are either in progress or we're onboarding now to get them onto the Office 365 product this year,

and we're still on track for June 2021 completion. Before I move on, any questions about Office 365? I know that's been something that's --

**Michael Dietrich:** Michael Dietrich for the record. Just one clarification on the completion of Office 365. So, there are a couple of -- I don't want to say outliers, but groups that have different circumstances that will be beyond this 2021 date. So, first of all, Department of Transportation, they are already on their own tenant. They've done a great job of setting up their tenant, and there's simply no reason why we would change that formula. So, we are talking with their IT staff to talk about federation with the state tenant. And making that as seamless as possible without changing that, and also, Department of Corrections has some network issues. We are in the process of solving -- beginning to solve those issues, but at the time that this schedule and scope was written, there wasn't a high level of confidence that we would have those resolved in the deployment timeline. So, that one agency is kind of set aside beyond this biennium, but outside of those two things, we will be complete by end of the 2021 biennium.

**Eric Pennington:** For the record, Eric Pennington. The next project is Critical Service Protection. As you can see, the Project Health, it's in blue. They're getting ready to close this out. The tool has been installed, and all of the servers that are affected that were already in place are being managed, and they're just going to transition this operation to handle any new servers that come into the network. VxRail, this is to replace the legacy physical server hardware. There was a -- the installation of primary and secondary disaster recovery site. The primary site has been installed. It was installed in February, and they anticipate the secondary site will be completed in October as planned.

**Chairman Diflo:** For the record, this is Paul Diflo. Let me ask you a question about that. What's the scope of this? How many -- I'm assuming this is just a handful of servers left over that have not been virtualized yet or is that assumption incorrect?

**Eric Pennington:** For the record, Eric Pennington. That, Mr. Chair, is a great question, and I'm -- unfortunately, I don't have the details on that to answer that for you, but I can certainly get that answered for you quickly.

**Chairman Diflo:** Okay, thank you, sir.

**Eric Pennington:** Okay. For Comvault replacement, this is to replace off-lease equipment to address backup capacity issues. That equipment has been replaced. They anticipate delivering this, finalizing this in September. Finally, section three, the networking group, again, this is -- they focus on the projects that were approved in the last legislative session, and these detail the two projects that are in progress. The first is Bigger Pipes Core Infrastructure, and this is to implement the Switch Communications core network infrastructure in Reno with a link to the Switch facility in Las Vegas. And right now, we've got this project in a yellow status, and the reason for that is -- are the dates. They were originally scheduled to have this completed in June, and there's a risk right now that they might not have this completed by the end of August for that Reno, Las Vegas connection. I don't think it was slipped that far, and I apologize. I don't have the absolute details on this, but I can assure you that when I step up here the next time, I will. Any questions about Bigger Pipes? All right.

Moving along, the microwave replacement project, that's, again, to replace end of life microwave infrastructure at 75 sites statewide. It's my understanding that really all of the infrastructure has been replaced. It is in place, and the only challenges they're facing right now, one is a contract that is a tower lease for Sawtooth Mountain that's keeping the project work from being completed, and I believe the AG's Office is involved in that.

And then there was also permitting. There's a permit that's required for the Pine Grove Peak from the US Forest Service. They said it could take up to two years, but I understand they're fast-tracking this particular request. But all of it has been deployed, and all of it will be functioning by November 2018. And that is what I have to present, Mr. Chair, Members of the Board. Any questions?

**Chairman Diflo:** Thank you very much for the thorough presentation, Eric.

**Eric Pennington:** You're welcome, and for the record, Eric Pennington. I appreciate the suggestions on the last -- and any recommendations you can make so I can make this a little bit more relevant for you. I would appreciate it.

**Chairman Diflo:** Very good.

**Eric Pennington:** Thank you.

## 9. ROAD TO UNITY UPDATE - Michael Dietrich, State CIO

**Chairman Diflo:** Okay, let's move on to Agenda Item 9, which is the Road to Unity update. So, this is one of the items I mentioned earlier. So, pay attention closely to what Michael is going to present on this segment of the Road to Unity, and then we'd really love to get advice from the IT experts, feedback from customers that you support at the end of this. And then we will do the same type of vote that we did with the BDR, individual yay or nay on whether we want to endorse this. Michael?

**Michael Dietrich:** Thank you, Mr. Chairman, Members of the Board. So, it is my pleasure -- I'm very excited about the opportunity to present where we're at with Road to Unity. As I have been building this statewide strategy, supporting documentation, the plan, having conversations with the staff at agencies, talked to ITSPC, it's all coming together. The conversations are starting to converge. The concepts are starting to overlay really nicely, and I'm personally very happy as well as my office and folks in the organization, the EITS organizations, Department of Administration, are very excited about this. There's some components of Road to Unity that are coming together naturally as we define how we would like to -- how we would like to make decisions going forward, and I can call those out. There's also some things that we're doing very deliberately to change pieces of the infrastructure that we believe it is the right time, again, through these conversations with the agencies. We weren't making these decisions in a vacuum, and I'll start there.

So, the -- on the budget initiative sheet, there was an item called Road to Unity, and that is one that we are actually making a very striking change, if you will, to how we're handling

the state's central compute environment. And I kind of eluded to this before, where if you've got agencies that need to virtualize their application and server technology, and those -- that virtualization can live in very similar environments, there is a ripe opportunity to centralize that environment, to take advantage of the economies of scale that that centralization would provide, and at the agency level, it does not change the ways of working. It actually -- for the folks who maintain the servers and the applications, their job doesn't change substantially. There may be a small reduction in the support requirement of touching and maintaining the physical server itself, which I think in many conversations, folks enjoy availing themselves of that maintenance work. And it also, with that free time, allows them to take on higher level, more important, and in some cases, you know, much more enjoyable tasks than swapping drives in and out of servers.

So, our proposal here is to actually expand on the existing shared virtual compute pool that we have in our facility today, and a lot of agencies are already residents of that virtual compute pool. We have had conversations with folks about, well, why don't you -- you're not a resident in that environment. Why don't you move your applications over? And we're hearing a very common theme, which is I don't want to have to put in a ticket with EITS every time I want to spin up a virtual machine or make a change to one, or et cetera, et cetera. We totally hear that and understand that, and that, in today's modern world of virtualization, should not exist that way.

So, this is to actually implement self-service tools, self-management tools. The technology is called VMotion, vRealize are a couple of the tools that we're going to be implementing which allow us to give that control to the customer agencies. So, you, as an agency, can have your own dashboard. You can see which virtual machines you have. You can turn them on and off, expand their capabilities, and just manage your own environment without having to go through the interface of a third party for all those changes. We would still maintain the hardware, and of course, if a drive were to fail or some other piece of hardware were to fail, that would go through normal support queue, but also freeing us up -- of EITS - having to respond to every request, which is inefficient also, gives us more bandwidth to respond to these critical hardware requests and other things that are of a more important nature than some of the things that this tool would avail us of.

So, our strategy is to fund this in the upcoming biennium. We are looking at some -- what I would say are creative funding methods to do this, because as a rates-based service, we have to be sensitive to the fact that when we implement a new piece of technology, the spend on that technology then manifests itself as increases to rates across agencies, and obviously, there's a bit of a dwell time where you haven't enjoyed the reduction of your -- the data center that you have to pay to support that lives in your agency building -- that's one of the things in conversations folks would certainly like to not have to budget for and to maintain.

I have a great story of one agency that has, like, a small data center, and it has this big fiberglass umbrella over it, which is a pretty state-of-the-art-looking fiberglass cover, but it's because when it rains, the roof leaks, and it can't drip on the servers. So, in the central facility and at Switch, which would be an extension of -- physically, an extension of the environment that would be the Unity environment, we don't have to worry about those things.

So, the idea is to build this thing and to make sure that it's built in such a way that it meets agency needs. And as we get toward the second half of the biennium and into the following biennium, we would, through that provision of what it is that you're asking for, start to move agency applications from these disparate virtualized environments into this central compute environment. So, that is the one line item which is about \$4.7 -- \$4.8 million startup cost for all of these tools and then an ongoing maintenance cost of \$874,000 for the licensing of the tools. Before I move on to the other items, are there any questions or comments about that piece? I would certainly love to hear from you.

**Chairman Diflo:** For the record, this is Paul Diflo. So, I look at this from an IT perspective. I may gain efficiencies if I go to somebody like Amazon and have them host my virtual environment, but I'm doing my own provisioning of the servers. So, that's considered a public cloud. What you, in effect, are offering is you're the cloud for the agencies. You're like a private cloud, but you're allowing them to do their own self-servicing provisioning, but they don't have to do the maintenance, like the patching every month. That's going to be on you guys to do things like that?

**Michael Dietrich:** Michael Dietrich for the record. So, actually, the agencies would be the owners. In the most common relationship with EITS, the agencies would be the owners of the applications and the virtual servers, and in that case, it would be incumbent upon them to patch and maintain the servers and the software.

**Chairman Diflo:** I see.

**Michael Dietrich:** We certainly could talk, going forward, about a relationship where that would be taken on by EITS, but I would -- I know that that would require further planning and discussion, possibly additional resources to offer that as a service.

**Chairman Diflo:** Okay, thank you for clearing that up.

**Michael Dietrich:** Yes, thank you, good question, and also, to kind of expand upon that just a little bit, the -- it's amazing how much conversation we've had about whether or not we can call it a private cloud. And I was calling it a private cloud. I had an analyst come in, because we want to have as many third party opinions, such as all of yours, weigh in on this, and a Gartner analyst actually said, be very cautious about calling it a private cloud, because that has the connotation that it hosts worker processes and has that support for application development, which our environment inherently doesn't. If you wanted a development environment -- software development environment to run on one of your virtual servers, you would have to put it on there. That's not something that we are providing. I think it's okay to call it a private cloud as long as we're very careful about how we define what services are available in this virtual compute environment, and really, VCP, or Virtual Compute Pool, is kind of the industry accepted term for it. And I just call that out because it has been memorable how many debates there have been about what to call this thing.

**Chairman Diflo:** No, that's an excellent point. You'd probably use your new brand manager to come up with some type of service level agreement and communicate something like that. All right, very good. Any other questions for Michael on this topic?

**Sherry McGee:** For the record, Sherry McGee. I have two. The first one is who are some of the pilot agencies that are going to be the first to go? Have you identified those? And then what is the cost model going to be like? Is it going to be competitive with some of the private past offerings out there?

**Michael Dietrich:** Michael Dietrich for the record. So, to the first question, the first agencies that will move over will be the current customers of the state's Virtual Compute Pool. They will just move over into this new self-managed environment, and they will also become the pilot, if you will, of how this thing will work. Since they are already used to the method of interfacing with the environment today, they actually will be great beta testers, if you will, for the new self-management environment. And we are also -- we've had several conversations with other agencies that have unofficially stated, if you build it in this way, we will come.

So, the idea is as we enter into the session season, to have -- to make those conversations more formal. I plan on giving a presentation at ITSPC about where we've gone with this, and that, as I see it, would be the seed point of having the conversations where we'll be looking for commitments -- you know, conditional commitments, because I'm very cautious that if we don't build this in the way that it meets business needs, I wouldn't expect anybody to come over, but I would hope that each of the agencies would agree that if it were built to spec and meets the business needs, then you have our commitment that we will -- you know, there's simply, at that point, no reason not to move over.

**Chairman Diflo:** Additional questions? Michael -- oh, Mr. Betts?

**Craig Betts:** Craig Betts for the record. I'm a little unclear on what this is going to look like. What I pictured as you were describing is a -- procuring a big server farm and enabling -- we got some other initiatives that we were talking about, cybersecurity and things like that, that are going to be on the edge protecting these servers that are on the inside and then enabling agencies to spin up their own environments. The Chair talked about Amazon, AWS, and I kind of pictured that as an example as, okay, I want to have an environment to run this application. I can size it and spin it up myself, but what if I need to have public facing on that? It gets a little unclear to me on governance and how we're going to -- how you're going to manage that and enable -- if it's going to be private cloud, I assume that's just internal, but if it's going to be something other than that, maybe you can elaborate just a little bit more for me on that.

**Michael Dietrich:** Absolutely. Thank you for the question. Michael Dietrich for the record. Obviously, this is -- we're starting to allude to the future of the Road to Unity and some other phases of it, and I'd love to kind of talk about how this dovetails into that and maybe save some of the detailed -- you know, phase two, phase three discussions for later. But in the abstract, yes, we do need to have a public facing solution, a public cloud solution, and that is being -- currently being considered, what will that look like, and we also know that there are agencies that are more technologically advanced than EITS and other agencies. It's just the nature of, you know, how things work on these disparate continuums, and some of those agencies are already considering what their public cloud solution would look like.

And in that case, again, going back to the Road to Unity concept of having these conversations about what would it look like for the State, I would hope that we could -- without halting or slowing their progress, you know, convene discussions to meet somewhere on -- meet in alignment to say this is the solution. You know, you're better at this. You're faster at this. Go forward. Now that we've selected a solution, we'll catch up or we will join you at the appropriate time.

That said, we do need to think about -- the Virtual Compute Pool is only one step. It is internal. It is not truly a cloud environment. It is just a shared computing environment, and I think that the next -- one of the next steps that I predict we'll be talking about in future conversations is a cloud brokerage model where central IT utilizes cloud broker solutions to connect this internal Virtual Compute Pool to whatever cloud, external cloud, public cloud environment is appropriate for the agencies.

And I'm pretty excited about some of these conversations I'm having with the companies that offer these cloud broker tools, although I am cautious that we haven't taken a deep dive into this yet. We haven't taken a really close look at it, but it, I predict, will be the -- like phase two, because you do need -- unless you're going with application as a service in public cloud -- like, I need a tool in the public cloud that allows me to, you know, register serial numbers, for example, or the budget tool. Those standalone software as a service, it's a little bit different than actually having a state or agency, public cloud environment that everybody shares in and does with it what they need through custom applications and tools. But whatever that looks like, it needs to seamlessly blend with the internal Virtual Compute Pool.

**Chairman Diflo:** Thank you. Michael, you have more to go on the Road to Unity?

**Michael Dietrich:** Michael Dietrich for the record. Thank you, Mr. Chairman. Just to point out really quickly in the interest of time, there are several of these other initiatives that have -- that's just been this natural progression and alignment as we have these conversations and everybody starts to kind of embrace a new way of thinking, and just calling out Office 365, the way that's gone with governance, the enterprise CMS tool, and a higher level of interest and adoptance there, same with ADA.

The Enterprise IT governance and strategic planning, purchasing support via IT, all of these things I consider are individual pillars of the Road to Unity, and I am putting together, with the help of my great team within the Office of the CIO and EITS, a formal strategy document, which we will present a draft of that at ITSPC, which will include, at a high level, all of these things that are happening today as well as some thinking around how this continues on past this upcoming biennium.

**Chairman Diflo:** Very good.

**Michael Dietrich:** Thank you.

**Chairman Diflo:** Okay, does anybody have any feedback-slash-advice, opinions after hearing Michael's presentation? Open that up. Okay, seeing none, I would like to ask for a motion to vote on endorsement.

**Jeff Menicucci:** Mr. Chairman, Jeff Menicucci.

**Chairman Diflo:** Yes?

**Jeff Menicucci:** Not to throw cold water on this, but the Agenda Item 9 is not designated for action; however, I noticed that Agenda Item 7 was designated for possible action. So, if any vote for approving this item were to take place, I would suggest you revisit -- do it by way of revisiting Item 7, and this Road to Unity was a part of Mr. Dietrich's presentation under that Agenda Item.

**Chairman Diflo:** Okay, that's a good point. So, what you're saying, then, is we will vote on Agenda Item 7. This was a segment of Agenda Item 7, even though it was listed as a breakout Item 9 on the Agenda.

**Craig Betts:** Yes, that's the way I see it.

**Chairman Diflo:** Okay. That's how we'll do it. We'll vote on it as Agenda Item 7. With that, I would like to ask for a motion to vote to endorse.

**Sherri McGee:** Sherry McGee for the record. I motion that we vote to endorse.

**Chairman Diflo:** Thank you. And I'd like to ask for a second.

**Director Whitley:** Richard Whitley. I second.

**Chairman Diflo:** Thank you. Leslie, let's do the same thing, go down the list and ask for --

**Senator Denis:** Mr. Chair?

**Chairman Diflo:** Senator?

**Senator Denis:** This is Senator Denis. Are you going to take comment here before you -- I mean, before you take the vote?

**Chairman Diflo:** Yeah, I didn't hear any comments. Go ahead, Senator.

**Senator Denis:** No, normally, you take the motion, and then you see if there's any comments, and then you take the vote in case there's -- I just want to make sure that we're clear on the motion, because Item 7 had a lot of things in there. I think the intent is to only vote on that specific part of Item 7 that has to do with Unity; is that correct?

**Chairman Diflo:** That's absolutely correct. For the record, Paul Diflo. We were only voting on the Road to Unity topic under Agenda Item 7, not on all of Agenda Item 7.

**Senator Denis:** Great. I just want to make sure that was clear for the record. Thank you.

**Chairman Diflo:** Any other comment or clarification? Leslie?

**Leslie Olson:** Assemblyman Hambrick?

**John Hambrick:** Aye.

**Leslie Olson:** Senator Denis?

**Senator Denis:** Yay.

**Leslie Olson:** Chairman Diflo?

**Chairman Diflo:** Yay.

**Leslie Olson:** Director Whitley?

**Director Whitley:** Yay.

**Leslie Olson:** Director Malfabon?

**Director Malfabon:** Yay.

**Leslie Olson:** Ms. McGee?

**Sherri McGee:** Yes.

**Leslie Olson:** Mr. Betts?

**Craig Betts:** Yay.

**Leslie Olson:** Ms. Shrinivas?

**Krupa Shrinivas:** Yes.

**Leslie Olson:** We have eight yay's.

**Chairman Diflo:** Okay, then the motion to endorse Road to Unity from Item 7 has passed.

**Michael Dietrich:** Thank you, Mr. Chairman, Members of the Board, appreciate your time and indulging me in the presentation. Thank you.

10. DISCUSSION OF MTG'S NCJIS MODERNIZATION PRELIMINARY FINDINGS –  
Julie Butler, Administrator, DPS Records Communications & Compliance Division

**Chairman Diflo:** Thank you, Michael. That will take us to Agenda Item 10. Julie Butler, Administrator of DPS Records Communication and Compliance Division, is going to present the NCJIS modernization findings. This is the same thing. After we hear -- we want to get everybody's input, feedback, advice, and let's see what the Agenda says. It looks

like the Agenda does not have anything about possible action. So, we may have to delay this until the next meeting.

**Jeff Menicucci:** Mr. Chairman, Jeff Menicucci. Yes, for discussion only I would suggest.

**Chairman Diflo:** Okay, discussion only.

**Julie Butler:** So, good afternoon, Mr. Chair and Members of the Board. For the record, my name is Julie Butler, and I'm the Division Administrator for the Department of Public Safety Records Communications and Compliance Division, and I'm here today to make you aware of something that's very near and dear to my heart, and that is the NCJIS modernization program. And it not only affects my division, but this definitely has a statewide impact on law enforcement -- actually, not only statewide, but nationwide because of the far-reaching tentacles that this system collectively has into not only criminal justice agencies at the local level and the state level, but also at the federal level.

So, I wanted to just kind of start with letting you know who we are and what we do and then move on to where we are with the Nevada Criminal Justice Information System and our modernization effort. So, the Records Communication and Compliance Division was created in the 2013 session by Assembly Bill 465. Our division is the third largest in the Nevada Department of Public Safety with 181 FTEs. Our division is divided into two bureaus. We have the Records Bureau, which is the Criminal History Repository, and it's for this reason that I'm before you today, and then we have the Communications Bureau, which is our public safety dispatch centers located in Carson City and Las Vegas that dispatch primarily for our department-sworn personnel.

Criminal history records, or rap sheet -- are commonly known as rap sheets, and they're the foundation of what we do in the criminal justice community, and they're the core function of the repository. Everything relies upon the rap sheet's timeliness and accuracy from officers on the street wanting to know who they've encountered, to prosecutors when determining whether to bring charges against an individual, to juries in courts when determining convictions and sentencing, prisons, parole, and probation when determining appropriate housing and programs for offenders.

And on the civil side, thousands of Nevada's employers depend on criminal history record information when screening applicants for positions of trust, such as teachers, nurses, state care workers, et cetera. Our citizens demand that my staff make accurate determinations about who can legally possess a firearm, who is supposed to register as a sex offender and for how long, and what tier level they should be.

So, how do we do that? Well, the systems that allow my staff to perform this important work and get that information out to the criminal justice community as well as employers are collectively known as the Nevada Criminal Justice Information System, or NCJIS, and it's through these systems that Nevada's criminal justice community communicates with each other, with other states, and with the FBI, in my division's role, as what's called the FBI's Criminal Justice Systems Agency, or CJIS Systems Agency for the state of Nevada. The stakes are very high, and therefore, it's critical that our underlying data and systems are modern and functional.

So, the components of NCJIS were designed at different times, and some of the largest applications were built in a vendor platform that is no longer supported, and you heard Mr. Pennington earlier talk about two of the major applications within NCJIS, a Computerized Criminal History system and the Offender Tracking Information System and the efforts that are ongoing right now to modernize those.

Well, the staff and contractors of Enterprise IT Services have been working for the past three years to replace critical components of NCJIS that were not vendor supported. It's still a work in progress, and there is a lot more that needs to be done. Major components, like the law enforcement message switch, rely on a vendor with fewer than five employees, and that's frequently posed problems for us when we're trying to get projects done in a timely manner.

So, let me just take you through the history. In 2012, my bureau received a federal grant to hire a consultant to develop a plan for NCJIS modernization, and MTG Management Consultants was retained to conduct that study and a plan, and it found that the systems that collectively make up NCJIS were outdated, overly complex, and at significant risk of failure, and that continued reliance on a small vendor with fewer than five employees was a significant risk. Now, this wasn't anything we didn't already know, but it was nice to at least have it lined out on paper.

And so in the 2013 session, the Records Bureau presented the results of the MTG study to the legislature, and we were successful at obtaining a one-shot appropriation to begin the first phase of a multi-phased approach to replace various components of NCJIS. But a couple of critical decisions were made in that legislative session, the first of which was that in fiscal year '14, DPS IT staff were merged with the staff of Enterprise IT Services, and at the time, leadership decided to take a very different approach than the one recommended by MTG.

So, MTG had recommended that basically we look for commercial off-the-shelf products and that we use an integrator to tie everything together, and we recognized at the time as DPS IT that we really were not staffed to take on a program of this magnitude, but leadership at that time, nobody that's there currently at Enterprise IT Services, but they had a different opinion of how we should approach that.

So, a new middleware solution was tried at that time and proven to work, and for cost reasons, it was decided that we were going to upgrade the law enforcement message switch rather than replace it. So, that was the second critical deviation from the study. The study recommended that we go with a commercial off-the-shelf message switch rather than upgrade the one that we have that's supported by the vendor with fewer than five employees. So, we went down that path, and in the 2015 legislative session, EITS requested positions to rewrite the computerized criminal history system rather than look for an off-the-shelf product. And so that, as you've heard, is really the foundation of what we do there at the Criminal History Repository.

So, we've gone down this path now for a couple of years. We've received some one-shot appropriations, and so as Mr. Pennington's presentation earlier indicated, that we were

targeting completion of our computerized criminal history system by the start of the '17-'19 biennium, so by July 1 of 2017. So, that didn't happen, but thinking that that's where we were going to be by the time that the '17 session rolled out, I approached the legislature with a project to upgrade several of the other systems within the collective NCJIS environment that need replacing, and those are Domestic Violence Protection Order System and then what we're going to lump into something called civil requests, which are the various applications that my staff uses to run the various types of background checks that we do.

So, Civil Applicant is a system that we use to do our fingerprint-based background checks. Then we have our Point of Contact background check. Those are for -- any of you that have ever tried to buy a firearm, you know you have to go through a background check at the point of sale. My staff on the back end use this Point of Contact system to facilitate that, and then there are various employers that use a service that we call Civil Name Check, which is a name-based background check, and we primarily cater to the casino industry for their non-gaming employees.

And so along with that, we wanted to replace our accounts receivable solution, because unlike many state agencies, we are a fee-based agency, and we collect fees for those background checks that we perform, and so the accounting system needs to be replaced. And then we wanted to bring it into some modern technology with document management and a user portal, because we're very paper and labor intensive on what it is we do. So, using those fees that we collectively approached the legislature and said we're going to use our reserves that we've collected to fund this. And so stepping back, if you remember that in the '15 session, the critical decision was made that we were going to upgrade our message switch rather than replace it, and so that's what we did.

Enterprise IT worked with our vendor over the '15-'17 kind of biennium to recompile everything and get it to where it could be upgraded, and so we deployed that message switch in 2017, and our best laid plans sometimes go awry. And what happened in this message switch deployment was literally chaos. We experienced hundreds -- literally, hundreds of defects in several weeks of statewide outages as a result of that, and so to explain really what that means is that it means our local law enforcement agencies, when that message switch goes down, they have no means of communicating with each other, with the state, or with the FBI. So, that cop on the street at 3:00 a.m. wanting to know who he's got on the side of the road, we can't tell him if the law enforcement message switch goes down, and it went down for five weeks intermittently. So, that was really scary. It was literally an all hands on deck. EITS really helped us through and held our vendors' feet to the fire and got us to where at least now the solution is stable and it is functioning. So, that's really good.

Our CCH has been divided into two parts because of its size, and although we've gone live with part one -- we went live earlier this year in May, and that has addressed the end of life technology and the security vulnerabilities. There is still a lot of significant functionality issues that remain, and then there is still a whole second part of this that has not been addressed yet, and we've told Enterprise IT we don't want them to address it until these core components are replaced, and that's going to be a significant effort in and of itself, part two.

So, the deployment schedule for the Domestic Violence Protection Order Registry has also slipped significantly. It was originally scheduled to go live in December 2017 and then in

June 2018, and now we're looking at the October and November timeframe. So, this is a system where as the courts enter a protection order or issue a protection order against an individual, this is a centralized system that alerts law enforcement if they encounter this individual at a roadside stop, for instance, that yes, this is a -- this individual is the adverse party in a protection order. You may want to take extra precautions. Oh, FYI, the woman that's in the car with him shouldn't be in there with him, that kind of thing.

So, this is another mission critical system that needs to be replaced. There are several factors that have contributed to the schedule slippage, the most significant one being a lack of contractor development resources, which were shifted to deal with the Parole and Probation Offender Tracking Information System. And so as all this was going on, our message switch vendor dropped a bombshell on us, causing us not to release an RFP which we were going to release for those background check application systems that I talked to you about in the previous slide.

So, as I've mentioned, our message switch vendor -- and some of you may have heard of this system. It's called Justice Link, or J-Link for short. He has indicated to us that he wants to retire in two to five years, and he didn't just provide a message switch for us, but he's the one that also report our -- also develops the code for our various background check systems that we use internally, so Point of Contact, Civil Applicant, Civil Name Check, and accounting. So, we're really tied, linked at the hip, with this particular vendor, and in conversations with the owner late last year, he indicated a desire to retire within the next two to five years. So, given this new information, we've really had to shift our focus from let's now focus on our internal background check systems to, oh, no, we've got to replace a message switch, too, that we weren't necessarily planning to replace.

And so Enterprise IT looked at taking on the vendor's code, and they do have three FTEs devoted to helping us maintain J-Link on our end of it, but it's going to be really risky for them to do that. Unfortunately, the vendor that we have used over the years has not followed any sort of best business practices in software development life cycle. Excuse me. He has not documented anything, and it basically -- you know, Enterprise IT wouldn't know. It's like that fixer-upper you got to buy, and you're going to flip that house, and then you get into it, and you discover, you know, there's mold and there's sewage problems and the roof needs to be replaced and whatever. And it looked great from the street, you know? And I think that's what they would be walking into if they were to try to take this on. So, that's just not a viable alternative.

So, what we've decided to do jointly, and I really appreciate Enterprise IT's new leadership and realizing that we really need to take a different path forward, and so we've decided to bring back that vendor that did our 2012 study, MTG Management Consultants, and say, come back and help us with a plan forward, and so that's what we're going to do, and that's what we have done. And actually, the contract for MTG was approved by our Board of Examiners in April of 2018, so this year.

So, as part of your handouts, and I don't have this here, but I've got this -- I don't have the slide -- I didn't have it cued for the slide, but you've got this handout that has this very busy, messy diagram, and that's basically a depiction of what we look like conceptually today in our environment, and you can see it's very busy. And there's a lot of arrows, meaning we've

got a lot of interfaces that go to a lot of systems both on the top block of things in the diagram -- those are the federal systems that we link with, and then internally, that's kind of this middle tier of stuff that -- and the mechanism that allows all this stuff to communicate is the message switch, or J-Link. And then on the bottom portion, these are all the external systems that we communicate with. So, we've got county ITs and city ITs, and, you know, everybody -- FBI, and then on the side, these are our internal systems with the blue box with the little circles. These are kind of our internal systems that the repository uses to do its business. So, it's a mess.

What MTG has recommended that we need to get to is a much simpler diagram looking like this in your handouts, basically rearchitecting the database structure, so moving things from an oracle to a SQL environment for affordability and simplicity, replacing -- making the message switch an actual message switch and not having embedded applications within it as exists today for a point of contact or civil applicant or civil name check, so making it function just like a switch should and directing the traffic. And so it's going to be -- it's going to be a massive effort to do this, but it's absolutely critical for us to move forward and to become sustainable.

So, right now, they're working with us to refresh that study, and we just got a draft of that study about three weeks ago. They're working on finalizing it right now as I speak. I'll probably get that next Monday, but what that's going to look at, they're helping us right now with developing a scope of work and technical requirements to release an RFP later on and probably more toward the June 2019 timeframe, to replace the message switch, the computerized criminal history system, our hot files, which provide instant notification to law enforcement on the street of whether or not the person has any cautions about them, might they be dangerous, might they have a CCW, is there a protection order, are they an adverse party in that, et cetera. So, we need to replace those as well as those applications that my staff uses to conduct the various background checks that we conduct. So, this is going to be a very large RFP, and I wrote on there -- I have a bullet point that says it may make sense to bundle this with a new CCH, and so that might beg the question of, well, wait a minute, you're replacing your CCH. Why are you going to go buy a new one?

Well, that's something that we definitely want to evaluate, because there are vendor products out there. Every state as a criminal history records repository that does essentially the same things that we do. So, this is not customized technology that -- and there are vendor products out there that do that, and there are still significant bugs and defects that Enterprise IT is working through now, and there is a whole second phase of this. So, to me, if I can get a bigger bang for my buck and buying something that already exists that meets my needs, rather than, you know, spending money for phase two with Enterprise IT, that's the way I'm going to go.

So, I was hoping to execute our contracts for the message switch hot files and possibly CCH in fiscal year '19. The way that MTG has mapped that out is probably going to be more like fiscal year '20, just realistically with the size of the RFP and the requirements that we've got to include in that. And then we would look to implement, in the 2021 biennium and beyond and proceeding with civil requests, accounts receivable, our portal, content management in 2021. Because these things are tied in right now with our current message switch, we can't really extricate them. It's kind of this big spaghetti bowl thing. So, we kind of have to do

them all at once, which is scary, but that's what we're being told that we're probably going to have to do.

So, just so you're aware, you know, we wanted to make sure that this does tie into the Governor's goals, and it definitely does as far as safe and livable communities, vibrant and sustainable economy. We want to make sure we're getting people to work, turning around those background checks in a timely fashion so people can go to work, and that we're being efficient and responsive to our state citizens.

So, as far as remaining work for the future biennium, we've still got several components of this that -- you know, even beyond the 2021 biennium that this is going to actually take according to MTG. We're probably looking at a seven-year effort because of the size of -- just it's massive, and it's not just a message switch. It's several -- there are several components and layers and tentacles that this system has, and it will impact -- those of you that are at the county level, there will definitely be an impact with your local law enforcement agencies, because they have their own vendors that interface with the state system, and those folks are going to have to approach their vendors to make changes on their side to interface with the new state message switch and those systems. So, it's a definite statewide impact, and it's not going to be cheap, and it's not going to be easy, but it absolutely has to be done because it's mission critical.

So, we're looking at some of the other systems for future biennia would be the warrants file, letting officers know if there's a statewide warrant issued against an individual, rearchitecting the middle of this. So, basically, as I said, there's going to have to be movement from oracle to SQL. As far as the database, there will be massive database migration effort, application refresh, and I'm really interested. One of the things MTG recommended six years ago, and it remains true today, is looking at off-the-shelf and cloud-based solutions where it makes sense, and I am definitely interested in that. You know, we just can't throw staff at everything all the time, and this is -- you know, we really need to consider those options.

And so as for our relationship with EITS, rather than focusing them on in-house development, they're really going to become integrators and focusing on providing -- you know, making sure that they provide that glue that ties everything together, right, and makes sure everything can talk to each other. And we still have -- our sex offender registry system was an in-house system. There really aren't a lot of commercial products that lend themselves to a state sex offender registry application, and so they will still be responsible for maintaining that. We've still got them helping us with our live scan network, which is all of the booking stations have a machine called a live scan that transmits the fingerprints to us electronically, whether that's for arrest or for fingerprints for people trying to get jobs. So, EITS maintains that. They've built our protection order registry system, which I talked about earlier, and then we've got a backlog of some 31, 38, I don't know, IT.

As Mr. Dietrich mentioned earlier, we are their largest customer, and my division in particular, Records Communication and Compliance Division, makes up probably 95% of the IT projects that come out of the Department of Public Safety, and just for your information, this is our list and priority order of everything that we're aware of. Now, that's -- we don't have costs, and as Mr. Pennington indicated, necessarily a charter for every one

of those, but every one of them needs attention, and so that's just going to be our challenge going forward.

So, the big question is what is this going to cost, right? So, in 2012, the MTG study estimated it was going to be about \$18 million over six years. In the information that I got about three weeks ago in their draft, they were estimating now we're about \$54 million over about seven years, and some of the reason for that big change is that six years ago, we had the luxury of doing this massive project step-wise. You know, you could replace this component and this component and then -- well, we don't have that luxury anymore with our message switch vendor saying, I want to get out of the game. Now, really, the pressure is on for us to get that RFP out on the street, get the integrator, get the equipment we need, get the software we need, and get the folks moving in the direction that we need them to move to make sure that we have a sustainable public safety criminal justice information system.

So, they're currently working on refining those costs, and they'll be getting that to me later next week. Our plan is to use our agency's reserves to the extent that they're available, but, you know, to be -- to just be blunt, I don't have \$54 million over the next seven years in reserves to sustain that. So, we're going to be seeking general fund, and for those of you on the -- legislators on that, I know that's hard to hear, but it's absolutely the truth, because we're really to the point where we don't have any other options. So, that's where we're at, and I just appreciate the ability to come before you today to let you know where we're at. I'm happy to answer any questions that you might have, although I'll say -- I'll caveat this and let you know I'm not techie. So, if you ask me anything technical, I'm going to have to defer on that, but I do feel that I have a pretty good layman's understanding of what it is we're trying to accomplish and happy to answer any questions that you might have.

**Chairman Diflo:** For the record, Paul Diflo. Let me start by saying wow. That's big. And excuse my -- and its ignorance on how the governments work, but do you have collaboration with other states? Do you ever get together and discuss commonalities? I'm wondering if there's states that have probably something very similar, and maybe there's a model out there that's, like, a best in class type thing that you don't have to go in and reinvent the design.

**Julie Butler:** Julie Butler for the record. Actually, so, we do. So, Nevada -- let me just -- one of the systems that we do that on is called the Western Identification Network, and it's for our Automatic Biometric Information System, or ABIS, and we actually share our fingerprint identification system with seven other western states. And so we have collaborated, and we got seven other state legislatures to agree that we're all going to pool our resources to buy a fingerprint identification system, and as a result of that decision back in the late '80's, early '90's, the state of Nevada is able to avail itself of an awesome fingerprint identification system. It's state of the art, service bureau pricing where it's software as a service, essentially. We lease the equipment, and it's a best of breed system. Now, I've talked with WIN about, well, why don't we do that for CCH? At the time, the WIN board was not really enthusiastic about doing that for criminal history system on a shared model. Some states, we looked with -- to partner with Oregon and Washington, but our timelines were off, as they were buying a new CCH. So, that kind of -- that kind of wasn't an option for us there.

I will say that about 30 of the states have the same vendor for CCH, and that vendor is called CPI. So, they got the bulk of the market share, and so there's, I think, ways we could go about, you know, seeing -- like, partnering with other states or seeing what's out there, but we're not really there yet as far as on what we need to do for this particular system.

**Chairman Diflo:** Okay, thank you.

**Julie Butler:** And I just realized -- you know, there was one more slide talking about the cost of doing nothing, and we're kind of there, really, because I -- you know, although we've been really busy over the last three years, we've gotten to a point where -- we've sort of delayed this. You know, we've kind of tried to go in on our own, and now we're to a point where we can't afford to do nothing anymore, and particularly, in time and effort to respond to additional public scrutiny if something were to happen, like, really tragic. I mean, imagine, and as horrible as this is, the Las Vegas incident in last October, and imagine if our system had gone down and those officers weren't able to communicate with each other. That's precisely the type of thing that we're talking about here with this system, and it's really scary, and we were really fortunate last May when we had those five weeks of statewide outages with Justice Link that we didn't have an incident, officer safety or a tragedy happen. But, you know, we're just to the point now where we can no longer defer this. We've got to bite the bullet and move forward with this.

And right now, you know, anytime -- every session we have a new mandate to background a different group of people or make something -- revise a crime or add a penalty to something, and those -- it always takes programming changes. It always takes EITS. They're already backlogged on what they can do. You saw there was a request for them to provide seven more positions to us. We're drowning. We need those positions, and so these types of changes that we're asking for will allow us to be able to comply with those legislative mandates we get every two years, not only from there, but we get FBI mandates constantly. As a shared system with Western Identification Network, there's regional mandates that we get that we just have difficulty with right now. So, again, thank you for your indulgence today and happy to, again, address any questions that you might have.

**Director Malfabon:** This is Rudy Malfabon for the record. So, I know that if you look at the system modernization, the DMV had to -- or is going through, the legislature kind of looked at a transaction fee that was approved, I think, per transaction. But the way that this could be -- additional costs could be funded for modernization, I don't understand how others would pay to use this system. Could you touch on that a little bit?

**Julie Butler:** Sure. Julie Butler for the record. So, the way this is supposed to work in theory is that we get a funding stream called court assessments, and what those are, are -- every misdemeanor in the state who is convicted pays a fee to the court, and those fees are collected into a large pot, and then statute dictates that of that big pot of court assessments is what they're called, statute indicates that not less than 51% of that fees goes to the court, and then not less than 49% of it goes to the Criminal History Repository and five other agencies. That is what is, in theory, supposed to fund all of the Criminal Justice Information System -- that's supposed to fund all of these systems outside of what is in the repository's budget for the fees that we collect on our background checks. What has happened in reality is those

court assessments have been dwindling for years, and the courts are feeling the impact, and also are the six agencies that share that not less than 49%.

So, the repository, for years and years, has been supplementing to meet its needs with the funds that it collects from those fees. Now, we could look at potentially what if we increase the fee for court assessments. That's maybe an option. The fee that the misdemeanants have to pay, maybe that's option. Maybe we could look at a transaction fee. So, in Clark County IT, they charge a fee for the use of what is called their SCOPE system, and it's Shared Computer Operations for Protection and Enforcement. It's essentially their local criminal history system, and Department of Public Safety actually pays a transaction fee to Clark County IT for the use of SCOPE, because we do -- my staff uses SCOPE, and so does parole and probation, and various -- so, we could look at potentially doing that, charging the counties a transaction fee for the use of NCJIS in lieu of using general fund.

I mean, to me, I think all options should be on the table, but it is definitely a statewide system that has statewide impact, and that would be my understanding as, you know, what you would use general fund for, are those types of systems. So, I'm not sure if I answered your question.

**Chairman Diflo:** Good.

**Sherri McGee:** Sherry McGee for the record. So, the vendor that built the switch, how much notice did he give? I mean, do you have a date when he's going to be completely out of business and not supporting the switch?

**Julie Butler:** Julie Butler for the record. We spoke with him last fall in 2017, I want to say around the October-November timeframe, at which time I submitted a white paper to the legislature, an informational item, told them we had to switch gears from what we thought we were going to be doing this biennium. So, he's still going to be with us for at least another couple three years to help us wind down, and we've already had conversations with him, because he's going to be very much intertwined with us to help us wind this thing down and involved with whatever new vendor we select through the RFP process to help things get transitioned over. So, I just, in fact, last week, sent him a written statement of here's what we'd like you to do and here's what -- you know, we're going to need to engage with him in a new contract, basically, to write an interface between the message switch and -- the new message switch and the old one, and that way, it'll give the counties some time to transition over, because I want to be able to give the counties, then, adequate notice to say, here is approximately when we think you're going to have to engage your vendor. Here is approximately what we think it's going to cost. So, that that way, you guys can build it into your budgets and approach your county commissions with that.

**Sherri McGee:** Great, thank you.

**Chairman Diflo:** Mr. Betts?

**Craig Betts:** Craig Betts for the record. Great segue into my question, which was as one of those counties that's going to be impacted, I just want to confirm that the TACs are aware, they've been communicated with.

**Julie Butler:** Julie Butler for the record. Yes, the Terminal Agency Coordinators are aware. They have been communicated with, but one of our desires as we move this program forward, as we set up a program management office, hopefully, with approval of the powers that be to do so, is to hire a communications person to make sure that we're over-communicating, and that's what I hope, because I just don't think we can communicate enough, particularly with our users, as to where we are and what's going to be needed on their end.

**Chairman Diflo:** Senator?

**Senator Denis:** Thank you, Mr. Chair. So, I just want to go back to that first question that was just asked about the programmer that did the switch. If I heard right, you were saying that he's going to stay on or at least we're trying to get him to stay on until we have a full-functioning system or at least far enough along; is that correct?

**Julie Butler:** Julie Butler for the record. Yes, Senator, that is correct.

**Senator Denis:** And so what's the backup if he doesn't -- I mean, if he keels over tomorrow and we haven't started this process, I mean, what's our backup plan?

**Julie Butler:** Julie Butler for the record. That's really scary. Enterprise IT would have to take that over in the interim. I'm not really sure what other option we would have, and hopefully, somebody's coming up. Oh, great, Dave Haws, great.

**Dave Haws:** Good afternoon, Members of the Board. Dave Haws, Enterprise IT Administrator for the record. As Julie has mentioned, and we've been working very closely with her to understand the issues surrounding this particular problem. So, yeah, this is -- it's a major application with millions of lines of codes, essentially, using an architecture and a system product that's outdated and no longer supported. And so there's lots of challenges around it, and we've looked at this code, and we're familiar with it in the sense that we have done maintenance around these products for multiple years. When the DPS staff merged with EITS, some of that expertise of understanding some of this program code came over to EITS as well. So, we would have to tap into that. We possibly would also have to reach out to find a specialty group to also assist in maintaining something like this, especially if there were large portions of code that needed to be changed or updated because of mandates or something of that flavor. Does that help?

**Senator Denis:** Yeah. It's just good to know that we have backup, and, you know, even though it's not smooth, hopefully, we don't need that, but, you know, as we all know, IT projects don't always go exactly the way we want them to go, but we don't want to lose functionality while we're trying to get to something that works. So, thank you.

**Julie Butler:** And if I could, Julie Butler for the record. It's our desire as we move forward with the RFP to select a vendor that has a pretty deep bench so that we're not relying on a vendor with fewer than five employees going forward, because that is a significant risk.

**Chairman Diflo:** Any other feedback questions for Julie?

**Sherri McGee:** So, this is just some general feedback probably for the CIO, and that's coming up with a strategy that addresses cloud-first, COTS-first, you know, looking at those types of solutions when people come to the table with needs for replacing systems. I would like to see something like that coming forward, so whether it's a principle or part of your strategy or something so we don't get into this kind of predicament, because like was mentioned, we're not the only state that does this kind of thing, and there's lots of COTS out there now where there weren't before, and that's why we started custom developing a lot of this stuff. So, anyway, just a comment.

**Chairman Diflo:** That's a very good point. Any other comments on this? Seeing none, thank you very much. That was very insightful.

**Julie Butler:** Thank you for your time today.

#### 11. ADA FOLLOW UP - Linda DeSantis, Agency IT Services

**Chairman Diflo:** Item 11, I'd like to invite Linda DeSantis up to give us a status on the ADA initiative.

**Linda DeSantis:** Good afternoon. This is Linda DeSantis for the record. I'm here to update everyone on our ADA progress, and I want to thank everyone for inviting me back. The activity that we've had since the last ITAB meeting, and I do want to say I apologize. These were some last-minute updates, and they never got down to Las Vegas, but I will make sure that Leslie gets a copy of them and that they get posted on the website. Since the last IT meeting -- ITAB meeting, I'm sorry, we have managed to put three additional websites. We made them compliant. So, that brings our total of websites that are compliant to 12, which leaves 121. There are 17 other websites that I have identified as partially remediated, and the reason it's only partially remediated is because the documents within those websites are not compliant. We're estimating that those 17 will be remediated by the end of September, which will give us 29 websites that will be compliant, leaving us 104.

During that remediation, there were 4,688 PDF's remediated, and to just remind everyone, we started out with 75,609, and still leaves us 70,921 left. And I kind of want to explain if you look at the fact that we have 17 websites and you think about it, we've got all the content in those sites compliant, but we don't have the documents. It'll show you what kind of effort has to go into remediating those documents. In this package, I've kind of given you an example of the type of pdf's that we encounter, and these are just a few and a couple of examples after it.

The first one is the redacted documents, and of course, they're the ones that are being modified or changed because of legislature. These are issues because, first of all, they're in color. People that are blind cannot see color, neither can the screen reader. Anything that's crossed out or even the brackets around it, it just gets read as bracket approved, and it doesn't show that it's been removed in any way. And you can just see from the first two pages of that how much of that is done, and that's been about -- with all the sites that we've remediated so far, that's been about 15% of the documents that are in the website.

The other one is the fillable pdf's, and that is just a whole subject in itself. There is a document that kind of looks like this with just the seal, and it's simply a small, one-page document, and it took our experienced person who does the remediation of this four-plus hours, because what happens is when you start to remediate these documents, everything can be done, but now you're talking about the reading order or the tabbing order. So, everything was compliant, but the tab was taking the person from the top line to the middle line and down to the bottom of the page. So, we had to reorganize all of those fields so that it reads properly so if you're hitting the enter key or the tab key, like I said, or it's being read that -- it's being read in a logical order, and they can be entering things in the correct place. So, that is another one of the problems.

The third one is just a regular pdf document, and for the most part, those are generally easy to do. The next one is the scanned pdf document, which is literally a nightmare. Every single solitary element of this has to be remediated or touched and fixed. From the little dashes that I've got circled here to the blobs, or spots on there, we have to encapsulate them and push them in the background or tell the screen readers to ignore them.

So, it's just kind of a -- I'm hoping it's a better -- helping to give a better understanding of the kind of issues that we run into and why some of these remediation pdf's is so critical. And it's -- actually, when we first started working with the remediation of documents and just when we were first cited by OCR in the Department of Education, we didn't know very much about it, and we had to get educated relatively quickly.

Every state that I talk to, Michigan in particular, just kept saying, don't worry about your content. Get started with the document remediation, and it has really held true. In fact, I don't think you emphasized it enough, because we are so optimistic about things, and then we start hitting a document like this where we can do, you know, 40 documents in a day, and then we hit one of these and it takes a day or, you know, four hours to do it. So, just a little bit of insight as to why these numbers are so daunting and why we're having such difficulty in getting the job done.

Okay, and based on that, we're doing an awful lot of research on it. We've actually had the opportunity to take a webinar with the Office of Civil Defense -- Civil Rights, I'm sorry, and after that webinar, which was really, you know, insightful, they offered -- they had a little thing there that said, you know, would you like to meet with us or would you like to talk with us? What can we do to help you? So, we're taking advantage of that, and we have a meeting scheduled for August the 29th, and what it is, is a list of questions like this, sample documents, and just other general issues. What do we do if this happens? What do we do if this happens? And hopefully, they'll help us, hopefully, to be able to remediate these a little bit faster to give us guidelines, because they're the ones that are going to judge and kind of set the standards to begin with and help us adhere to them.

So, I was real positive about that, that we got that opportunity to work with them, and based on that, we can then start putting more information out. We can say, okay, if this is the situation, this is what you have to do or you can't do anything and take it off the website. So, that's the kind of information we're looking for.

The other last one that's on the last page, kind of put it out of order, are people's letterheads, and what we've done so far is -- that in itself is an interesting thing, too, because you can't really tab correctly with a screen reader to read all of it that's in there. So, you might see Patrick Cates, but it bypasses Michael Dietrich or something to that order. So, we found a way of getting around it. We actually take an -- make an image out of it, and then we just tag the image and put it back on the letterhead. We've done that for the Department of Administration's letterhead and memos. We're also -- we've also done it for EITS, of course, and we're offering -- we've got it on the website. We're going to offer anybody else that -- you know, if they want to have help, we can help them get that letterhead done, and that way, it'll kind of get them moving forward with sending out documentation and correspondence that's compliant. And then once you do that and you prepare your agendas and whatever, they're already compliant. Now you just have to post them to the website. So, we're trying to get people to start doing -- making compliant documents to start instead of having to go back and remediate them.

So, the next thing is -- I have here about the automation of global ADA updates and that it saved us 6,200 hours of manual work, and what that really is, is at one point, I had mentioned that there were -- like, there were only 38 websites that we had even touched or worked on to even start being in progress. When we started looking at all the manual updates that were being done, and there's kind of a good picture of that also on the last page, and what the global updates are, are basic header information, footer information that's on every single website in our CMS. So, if we've got 23,000 pages in there, every one of them has the same header and footer and the information within there, and that kind of information becomes a barrier to people that are using screen readers. So, we have to add tags and special code and scripts to either skip the header to help identify what pieces are in the header, make those pieces compliant.

Also, the navigation, which in itself is -- I've even learned has been unbelievably hard to deal with, in some screen readers, if you see a bunch of straight, you know, home, about, et cetera, across the top, if you have any dropdowns, depending on the way it's been created, it won't even see it. It won't show that there's any dropdowns for anybody to click on or it doesn't even see that at all. So, we've done a bunch of studying on that, remediation on that, and we've fixed that so that it should be fine with everybody that has a screen reader that's using it.

So, those type of fixes, also fixes on the footer, different elements of it, we wrote a program. Originally, it was taking us -- we did 21 websites, and it took us over a year, really a big deal, because we'd have to go in and put all this scripting manually into everything. So, we were able to write a program, automate everything, and run it against all 133 sites, actually, 131. Two of them were custom and we couldn't, and we were able to get those 133 websites so that users with screen readers could at least get into it, into the websites, be able to navigate them, and see what they are, and it saved us a ton of time. So, that was a really great -- to me, really great accomplishment.

The other part of it was that 95% of our CMS websites use SmartForms or templates, and they're nothing more than simple layouts so that you kind of fill in the blanks when you're entering your content. All of them that were in the site were non-compliant templates, because when we built them a couple years ago, ADA was never anything we thought

about. So, again, what we did is that program also addressed them. So, the way we would convert them is we would have to have somebody manually go in and convert the -- and it was somebody on our team that would have to go in, manually convert the non-compliant page to a compliant SmartForm, non-compliant SmartForm to a compliant one, not a big deal, thought maybe two to three minutes apiece to do it, but times 23,000 is a big deal.

So, we were able to address and programmatically fix most of them. We have 1,745 of those pages left that are going to require us to do them manually, and what's kind of really nice, too, is that when we do them manually, which again, takes two, three minutes apiece, all it's going to force the user to do is if it's -- if that particular page -- and the 1,745 are basically -- those pages have an image. So, those images have to be identified and given in all text in order for the user to be able to read it. So, we've kind of taken the scope that was like this and hopefully brought it down like this. Still, remediation is necessary, but hopefully, we've cut down an awful lot of time, saved an awful lot of man hours, and those man hours would have stretched over a couple of years that we now don't have to deal with. We can be doing remediation of documents during that time. Is there any questions on that so far? Okay.

**John Hambrick:** Mr. Chairman?

**Chairman Diflo:** Yes, sir?

**John Hambrick:** More of a statement. Ma'am, I appreciate your effort. I'm one of your customers that is color blind, and I have a tough time seeing the multiple colors on graphs and charts. In the presentation today, whoever published it actually said red, orange, blue. I really appreciated it, because in bar graphs or line charts, if there's no names, I don't see those colors.

**Linda DeSantis:** Exactly, exactly, and that's one of the other things that we're dealing with, with the actual remediation we have to take care of, and a lot of the automatic programming was to make sure that it's not an orange, it's a burgundy, or whatever is considered the correct colors, but thank you very much.

**John Hambrick:** I hate the color mauve [laughter].

**Linda DeSantis:** The next section is just the meeting and outreach, the meetings that we've been having and the outreach that we've been doing. One of the first things is that after the last meeting, Director Whitley asked if we could meet to discuss how his Department and us could collaborate with moving the HHS forward, and we did have that meeting, very impressed with how much work that your group had done and was just told today that you've got a steering committee that is coordinating the efforts for all five of the divisions and has asked us to be part of it, and I think that's great. That kind of -- and it's kind of a win-win for everybody, because we can be sharing information with you, and you guys will be sharing it with us. So, to me, it just moves the project further and faster.

Another -- oh, and the other meeting that we had that happened on July the 27th was we met with the Governor's Office and two representatives from the National and the Nevada Federation of the Blind, and it was basically to discuss ADA compliance in Nevada.

Thankfully, the meeting was very positive, and the Division of Enterprise IT Information Services was recognized for some of the work that -- for the work that we've done to date. But despite the work to date, the State of Nevada recognizes it needs to do more and to do it faster. The outreach also needs to go beyond the current State of Nevada Content Management System and to other divisions, departments, websites that are not -- you know, that are in Nevada.

We are currently analyzing and preparing a report to present to the Governor's Office on how to expand our reach to the entire state. To accomplish this, we feel we require the support of the Governor's Office to move forward as an executive order, the possibility or the direction of designating an ADA coordinator for each department, division, board, et cetera. And we realize this is our full-time job, but it's not everybody else's, and most of the time, the people that are working and updating websites are just doing it along with a million other tasks, but we need to have that one person that we can work with or that we can share our information with and they will take the ownership of, and without it being -- without that happening, it's not going to be successful.

We are also planning to create an ADA user's working group as well as an executive working group, and we are also continuing to extend our outreach. We're trying -- we've updated the website, like I mentioned last time. We put a new one out there. We're trying to enhance the focus. We're continually enhancing the focus so that the ADA -- it's to the users, not so much this is what we do. It's this is what we need to help you do. These are suggestions on how we do it in order to get it -- to get it so that people can understand it and begin to make their sites compliant. We are providing user resources, guidance, and training to help them with their websites, you know, become compliant. We ourselves are all taking classes. We're listening to webinars all the time. We are certainly -- we're not experts. We're trying to be, and we're trying to learn as much as we can, but we know that we can only do it with the help -- with other people that have been doing it for a while.

We've also created an ADA list serve. Right now, what we did is we loaded it with our CMS users to start, but we've also added all of our partners for ADA. We've also put it on the website. I think it's out there already, so that other agencies, other people that are interested in our progress or getting notification can just click the button and subscribe, and as we send notifications out, they'll get it also.

We also -- let me see. Oh, okay. We've also added a Twitter feed to keep people informed. You know, just this is done. Please go check it. Do you have letterhead? Send it to us. We've realized, like Julie Butler mentioned, that you can't communicate enough. In fact, you've got to over-communicate. No matter how many times we say it, until the person is actually ready to sit down and do it or listen, you know, you got to keep repeating it. So, that's what we're trying to do.

We're also working with the Nevada Governor's Council on Developmental Disabilities. They're doing a video right now, and we're not participating, but Roxanne Starbuck from the Department of Education, who has just almost finished remediating the Department of Education's website, will be on it along with a couple of other people. And we have also been asked to meet with the public information officers. There's a group that happens kind of a couple -- every other month or whatever, and we've put out a bunch of information. We

try to put documentation on the website along with webinars just in case somebody prefers to learn one way or another or a different way.

So, we are -- they've seen some of the information. They've asked us to come in and to give a presentation to the public information officers, and that's really a great place to be, because they do a lot of the communication and a lot of the -- they just use it a lot, and it'll get the information out and they'll be using, hopefully, compliant documents. And we are continuing to work with our ADA partners, Thomas Kearns. The AT consumers, the work that they've had, the experience that they've brought to our group has been amazing. I feel that we never would have gotten this far without it, and in closing -- wait a minute.

We want to encourage legislature for purchasing products to make sure that they are ADA compliant. You heard the story of the Seamless Docs. We want to make sure that that doesn't happen to anyone else. We are planning on trying to get a license for Siteimprove for monitoring not only all of the CMS users, but any other websites that are in the state of Nevada, DMV, NDOT, Secretary of State. We've gotten some quotes on it, so that's on the table, and also in closing, it's exciting to say that we are getting the message out as we've been receiving an awful lot of requests from our customers to get our websites compliant. So, we've been talking to a lot of people. They're moving forward, and I just think that's the only way we're going to be successful. Thank you very much.

**Chairman Diflo:** For the record, Paul Diflo. Linda, remind ITAB, has any entity given us a drop-dead date when we have to have everything completed?

**Linda DeSantis:** No. For the record, Linda DeSantis. No, there has not been.

**Chairman Diflo:** Does anybody have any comments or questions for Linda? Thank you.

**Linda DeSantis:** You're welcome. Thank you.

**Chairman Diflo:** So, every meeting, we --

**Krupa Shrinivas:** Mr. Chair?

**Chairman Diflo:** Yes?

**Krupa Shrinivas:** Sorry. I have one question for Linda.

**Chairman Diflo:** Come on back, Linda.

**Krupa Shrinivas:** Apparently, I wasn't [inaudible]. My apologies. Linda, appreciate all the effort that you and your team are going through to get us ADA compliant. As part of this, is there an effort underway to automate and templatize what is considered ADA compliant so people have that as they're putting out new websites or new content in addition to all the training?

**Linda DeSantis:** Yes. That is -- what I'm addressing as compliant templates are just that. If they are going in and they're putting new content in, they are putting it into ADA

compliant templates. What we're dealing with is the fact that we have five years of non-compliant templates that we're trying to bring up to speed.

**Krupa Shrinivas:** Thank you.

**Linda DeSantis:** You're welcome.

## 12. BOARD DISCUSSION OF FUTURE AGENDA ITEMS *(for discussion only)*.

**Chairman Diflo:** So, Agenda Item 12, we just want to ask at every meeting are there any Agenda items that you'd like us to include in the November meeting? Seeing none, if anybody does have any, you can send those items via email to Leslie.

## 13. PUBLIC COMMENTS *(for discussion only)*

**Chairman Diflo:** And that will take us to Agenda Item 13. We'll ask again in the North if there are any public comments. Yes, sir.

**Thomas Kearns:** Thomas Kearns for the record, advocate and member of the National Federation of the Blind and several other disability organizations. I just want to thank the ITAB. For the third time in a row, we've had accessibility on the schedule, and you had mentioned or asked if there was any Agenda item. Please, if you would, keep the accessibility discussion going. If you haven't noticed with Linda DeSantis as well as the leadership in EITS, CIO Dietrich, it's catching on fire, and more and more of the divisions in the State are starting to understand the importance of accessibility and how important it is for our citizens in Nevada so that not just part of our citizens have access to goods and services, but all our citizens have access to our goods and services so that they're all participants within the state. Without them, we're not really fully able. We're actually being hindered. We're not utilizing all the potential of our State, and we want all our citizens to rise to that occasion and be able to add to the great state of Nevada. So, please, please keep accessibility on the minds, because quite frankly, ITAB is the ones that have made it grow. I hate to say this, but you guys are the fertilizer. Well, that didn't come out right, but no, the fact is, is that you really have helped this be spread, and as you can hear, more and more individuals, more and more divisions are getting involved. So, please hear my words, and I thank you for your time.

**Chairman Diflo:** Thank you, Mr. Kearns. Yeah, we will probably keep this as an ongoing Agenda item. Linda, maybe we could get a progress report on sites and documents, similar to how we do the project dashboard. Are there any public comments down South?

**John Hambrick:** No, Mr. Chairman.

## 14. ADJOURNMENT *(for possible action)*

**Chairman Diflo:** Then I would like to ask for a motion to adjourn.

**John Hambrick:** You don't need a motion.

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- Washoe County Courthouse, Second Judicial District Court, 75 Court Street, Reno, NV 89501
- Nevada State Library and Archives, 100 Stewart Street, Carson City, NV 89701
- Grant Sawyer Building, 555 E. Washington Avenue, Las Vegas, NV 89101
- And the following web locations:
  - [http://it.nv.gov/Governance/dtls/ITAB/Information\\_Technology\\_Advisory\\_Board\\_\(ITAB\)/](http://it.nv.gov/Governance/dtls/ITAB/Information_Technology_Advisory_Board_(ITAB)/)
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The appearance of the phrase “for possible action” immediately following an agenda item denotes items on which the Board may take action.

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