



Information Technology Advisory Board

June 10, 2021



EITS Presentations

Agenda Items

- 6 – CIO INTRODUCTION (for discussion only) – State CIO, Alan Cunningham
- 7 – EITS AGENCY IT SERVICES UPDATE (for discussion only) – EITS Agency IT Services Chief, Suzie Block
- 8 – AMERICANS WITH DISABILITIES ACT (ADA) Update (for discussion only) – Agency IT Web Services Manager, Linda DeSantis
- 9 – COVID-19 – EITS' WINS AND CHALLENGES (for discussion only) – Enterprise IT Services (EITS) Administrator, Tim Galluzi
- 10 – INFORMATION SECURITY UPDATE (for discussion only) – State of Nevada Chief Information Security Officer, Robert Dehnhardt



Nevada State CIO

- Chief Information Officer
 - IT Landscape Changes
 - Strategy Summary
 - O365 Project Update

- State CIO, Alan Cunningham



IT Landscape Changes

- Increase in usage since Dec 2019.
 - VPN from <600 to +6,000, > 10-fold increase
 - First time Teams users 2019 516, 2020 10,829, > 20-fold increase
 - Teams users Dec 2019 1,330 today 7,995, > 6-fold increase
 - Teams messages Dec 2019 98,408 Oct 2020 2.78million, > 28-fold increase
 - SharePoint Files storage Dec 2019 986GB Oct 2020 6,100GB, > 6-fold increase
 - Overall O365 activities 6.8 million to 14.2 million > doubled



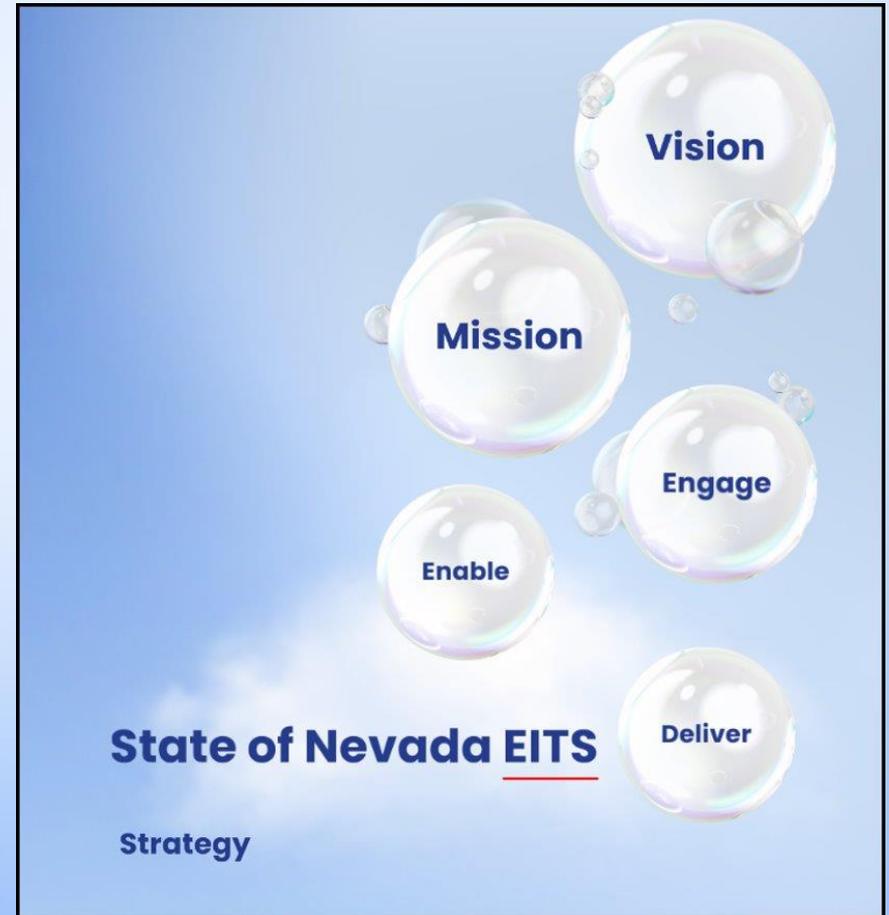
IT Landscape Changes, Cont.

- How are other States approaching the changes
 - Utah, Arizona, Alaska, Washington, Colorado. 38 out of 50 states have orchestrated their IT effort to maximize volume purchases and efficiencies within products and team member resources
 - Orchestrating Cyber Security is the best way to reduce Cyber risk
- Funding model out of sync with speed of technology. Citizen are not receiving the level of service they demand



Strategy Summary

- Tied to Business Objectives
- Strategy





O365 Project Update

- Current Status
 - Only 1,643 on-premise Exchange accounts left to migrate to the cloud
- 13,321 Licenses Deployed
- Remaining agencies and number of Employees to migrate
 - Current Biennium: 1 Agency (DPS) and approximately 4 Boards and Commissions. Total of 308 employees.
 - Upcoming Biennium: 2 agencies with an estimated 4,380 employees
- Adoption stats
 - 89.2% Active O365 Users
 - 96.8% Returning Users
 - Products Employees Use
 - 82.9% Exchange
 - 75.1% Teams
 - 50.7% OneDrive
 - 47.1% SharePoint





0365 Project Update, Cont.

- SMART 21 integration is complete although problems exist from extranets since we do not have MFA in place.
- Multi-Factor Authentication
 - Deployment plans have already begun
 - Expectation is to complete as quickly as purchasing/fiscal process are complete and Microsoft resources can be scheduled.
 - Targeting the first quarter of the new biennium but risks include purchasing delays and integration issues.



Thank You

Alan Cunningham

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EITS Agency IT Services Updates

- Agency IT Update
- State Web Update

- EITS Chief of Agency IT Services, Suzie Block



Agency IT Update

- Retirement of Ektron and migration of the agency websites to the new platform
- Movement of our staff that supports the legacy HR environment over to the Smart 21 team within the Office of Project Management effective 7/1
- Quick updates on NCJIS modernization and OTIS modernization with DPS
- Hiring of position vacancies and align the positions with our full-service customers needs



State Web – Digital Experience Platform (DXP) Web Update

- DXP – Replacement for Current Extron CMS Web Platform
- Expected Improvements
 - Digital Experience Platform (DXP) that provides a better user experience
 - Cloud environment (frees up Web team from maintaining environment)
 - Provide stability and security to our current users
 - Enhanced capabilities and functionality
 - New look & feel (several themes/templates will be provided by vendor)
 - Training will be provided by vendor to web staff and DXP users
 - Migration of current websites to new DXP by vendor
- Timeline
 - Will provide timeline once Notification of Award has been issued through purchasing



Thank You

Suzie Block

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ADA / NFB Update

- Americans With Disabilities Act
- National Federation of the Blind

- Agency IT Web Services Manager,
 - Linda DeSantis



Web/ADA Team – COVID-19

- During COVID, the Web team's workload increased by 90%:
 - Ektron users did NOT have a VPN or an ADOBE License, so web team did all their content updates, including the remediation of all their documents
 - Most of the website owners requested help with adding COVID-19 information to their websites
 - Governor's office requested a rewrite of their Website to incorporate COVID-19 information
 - Appointed several new boards & commissions that needed new websites that also included their unique COVID-19 information
 - Nevada National Guard also requested a new Web site, and then added a new [NVNG Leadership University](#) when they saw how nice their site looked



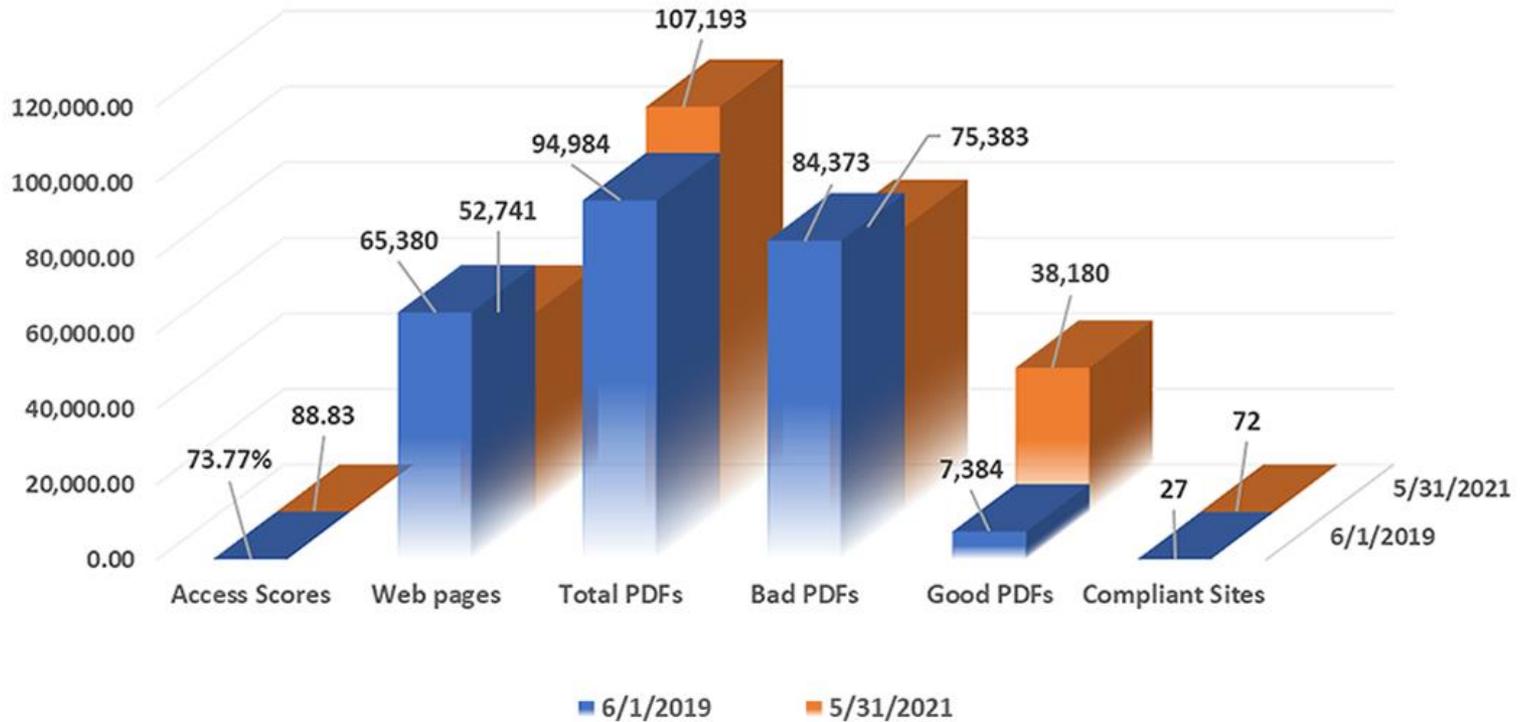
Web/ADA Team – COVID-19, Cont.

- Web team is now using TEAMS for all communications and training
- Web team created & enhanced additional ADA tracking tools:
 - Training application to track all classes being given by staff to state users
 - Total # of users who took our ADA training classes:
 - May 31, 2019, to current) - **Trained: 933 unique users – Total: 2,767 hours**
 - New ADA Tracking report of all ‘known’ State ADA websites (using a database built from nightly download of Siteimprove data)
 - Features: CMS or Outside CMS website; Site is Compliant; If user signed an SLA, if user took any ADA training, Who isn’t following ADA requirements, who SLIPPED and added non-compliant documents to website
- **Moved 99% web sites in the State CMS to transact over HTTPS**
- Web team reorganized our [ADA Document Remediation Training](#)
 - to provide users a comprehensive training class where they can take the entire class or jump in at designated times and only take topics they want
 - Remediation of Word, Adobe PDF, Excel, PowerPoint are included, and each have their own Guide, Videos, Practice documents, checklists and additional training and references. Video of each class is also made available



ADA: All 181 Websites - 39%

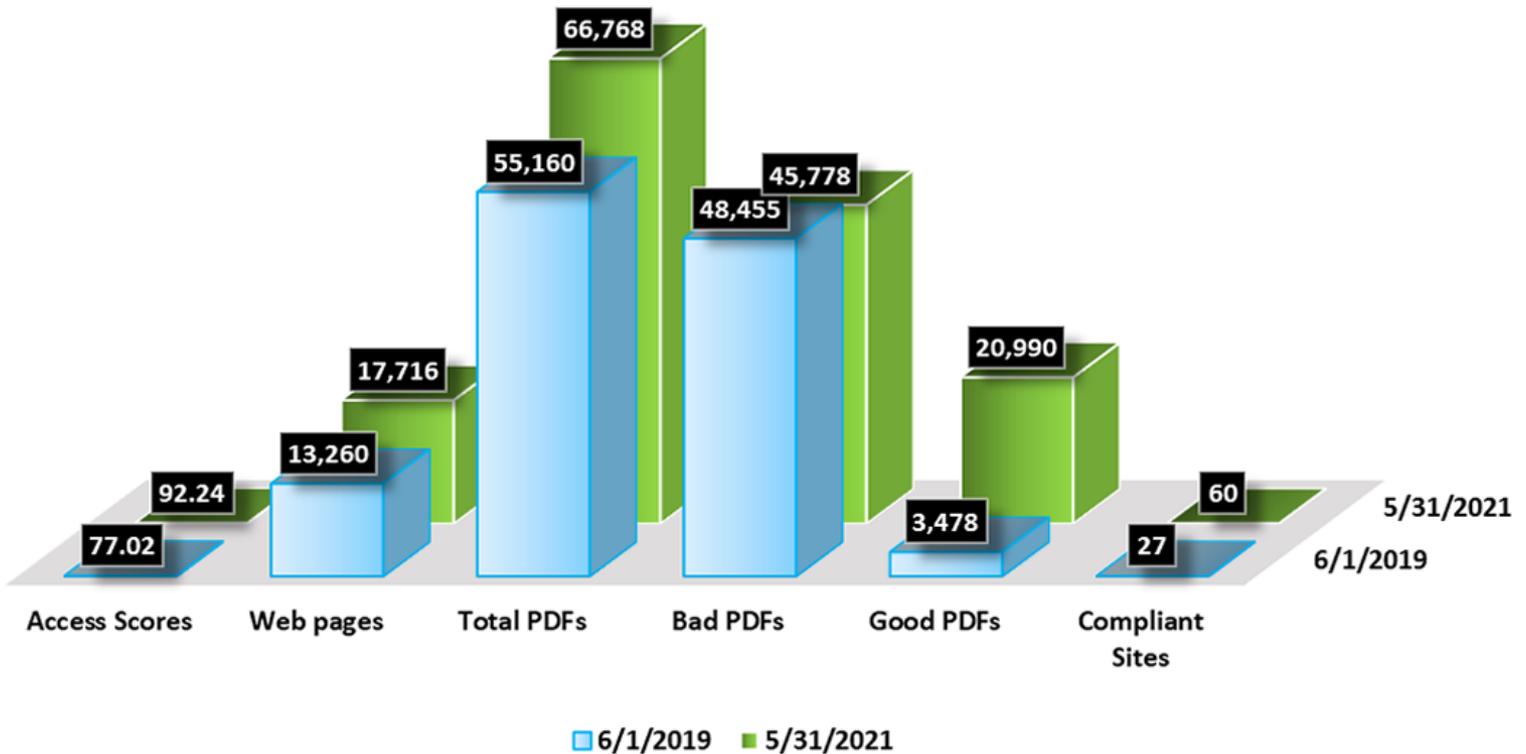
181 STATE WEBSITES - ADA COMPLIANT TWO YEAR COMPARISON
JUNE 1, 2019 TO MAY 31, 2021
115 CMS SITES/66 OUTSIDE SITES - 39% COMPLIANT





ADA: 115 CMS Websites – 52%

JUNE 1, 2019 TO MAY 31, 2021 (TWO YEAR COMPARISON)
115 CMS SITES - 60 COMPLIANT WEBSITES - 52% COMPLIANT





ADA – 100% compliant websites

- State of Nevada ADA - <https://ada.nv.gov>
- Nevada ADA Assistance - <https://adahelp.nv.gov> (built especially for Assistive Technology consumers so they can get assistance and report issue. This was the first request we received from AT consumers when we partnered with them)
- The Official State of Nevada – <https://nv.gov>
- Governor Steve Sisolak – <https://gov.nv.gov>
- Lieutenant Governor – <https://ltgov.nv.gov>
- Department of Administration – <https://admin.nv.gov>
- State CIO – <https://statecio.nv.gov>
- Department of Human Resources – <https://hr.nv.gov>
- Department of Public Safety – <https://dps.nv.gov>
- Division of Enterprise Information Technology Services – <http://it.nv.gov>
- Nevada National Guard – <https://nvng.nv.gov> - Leadership U-
https://nvng.nv.gov/NVNG_Leadership_University/NVNGU-Home/
- Department of Education – <https://doe.nv.gov> - Recently, Office of Civil Rights (OCR) met with DOE & Web team to review their websites that were cited in 2016. There were a few minor suggestions made by them that have already been addressed & are now released by OCR
- Smart 21 – <https://smart21.nv.gov>



ADA – Actively working

- Department of Administration – 13 websites – 84% Compliant
- Department of Health & Human Services – 8 websites - 62% Compliant
- Department of Public Safety – 16 websites – 62% Compliant
- Governor's offices – 10 websites – 50% compliant
- Tourism – 11 websites – 36% compliant
- NV Health Response – meeting with T. Robb & O/S vendor to assist with ADA
- Working with boards & commission (58 boards, most are not actively doing ADA:
 - Goal: Clean up their websites and train them how to build compliant documents to be added their websites
 - Creating boards new letterhead, agendas & Minutes templates and helping them remove prior years meetings from their websites (most go back to 2011)
 - **Marriage & Family Therapy is 1st board to sign SLA and work with us on their website's remediation**



Thank You

- Monthly ADA Status is posted on the State CIO's websites at <https://statecio.nv.gov>
State ADA websites – <https://ada.nv.gov>
State ADA Assistance – <http://adahelp.nv.gov/>

Contact: Linda M DeSantis – desantis@admin.nv.gov for additional information



EITS & COVID-19

- COVID-19 Wins and Challenges
- Wins
 - VPN Explosion (564 -> 7,645)
 - Rapid work-from-home adoption
 - State phone fast-busy relief
 - Business Productivity Suite (O365)
 - ITSPC – Online Investment Ranking
- Challenges
 - Desktop Support (largely remote)
 - Personal devices used for remote work
 - Security Policies – Impact of COVID-19
 - Little COVID Relief Funds for EITS infrastructure
- EITS Administrator, Tim Galluzi



SilverNet Responses – Enabling Remote Work

- VPN Explosion (564 -> 7,645)
 - Today there are currently 7645 users configured in the system that prior to March of 2019 had 564 users configured.
 - This number is increasing by the day, and we expect to see this number exceed 8000 users prior to the next fiscal year.
- Bandwidth Expansion in the South (10G Internet Circuit)
 - The surge in VPN usage drove a big portion of the increased usage of Internet usage in the South.
 - Increase in bandwidth also provides redundant Internet access for the South.
 - in the event the northern Internet connection were to become severed or inoperable.



Telecom Rapid Work-From-Home Adoption

- Teams played an instrumental part in the day-to-day internal Voice and Video calls for remote workers
- We had 0% phones deployed for remote workers prior to March
- Critical deployment trial
 - EITS 36 Softphone
 - Call Centers
 - Technical support
 - EITS 128 remote worker VOIP Phones
 - Call Centers
 - Technical support
- No loss of productivity (other than from vacant positions)



State Telephony Responses – Fast Busy Relief

- State Telephony Responses – Fast Busy Relief
- SIP Enhancement to relieve trunk congestion
- Call volume increased 200% immediately after the lockdown in March
 - DETR Unemployment calls
 - Employees forward to Cell Phones
 - Use of conference bridges for Collaboration (Teams replaced Conference Bridges)
- Fast busy caused by trunk congestion on static legacy circuits occurred
- Addition of the SIP trunks has greatly reduced congestion
- DETR Migration off Legacy circuits
- All out bound voice traffic is being routed out on new SIP circuits
- Integration support for DETR
- Call-center migrations and SIP trunks



Compute Wins – 0365 for Out-of-Office Work

- Business Productivity Suite for:
 - Teams Meetings and Calls
 - Collaboration on document creation and revision
 - MS Forms for online data collection
 - Power Apps to interface with SharePoint



ITSPC Wins – Online Investment Ranking

- No In-person Meeting
 - Increased flexibility for committee members
 - Investment review collateral distributed ahead of time
 - Larger ranking window
 - Automated collection of rankings from members
- Prototype for other similar meetings
 - Use Teams as central source of instruction and information
 - Use Forms to collect information and answer group questions
 - Use Teams Planner boards for process visibility and management



COVID-19 Spotlight on EITS Challenges

- Lack of agility in scaling infrastructure and support
 - Funding model
 - CapEx vs OpEx infrastructure
 - Little COVID Relief Funds for EITS infrastructure
- Lack of mobility with state compute equipment (desktop vs. laptop)
 - Personal computing use
- Cloud Security Tools



Thank You

Timothy Galluzi

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Information Security

- Cybersecurity Update
- Nevada Chief Information Security Officer, Robert Denhardt



Change in attack patterns ...easy to Answer in General

- Phishing Attacks
 - March – June: Significant rise in COVID-related subjects
 - Less emphasis as election season ramped up
- Ransomware
 - Targeting medical, public services, research facilities
- Social Media
 - Misinformation campaigns – distrust/misrepresentation of authority
 - Scams – monetary gain

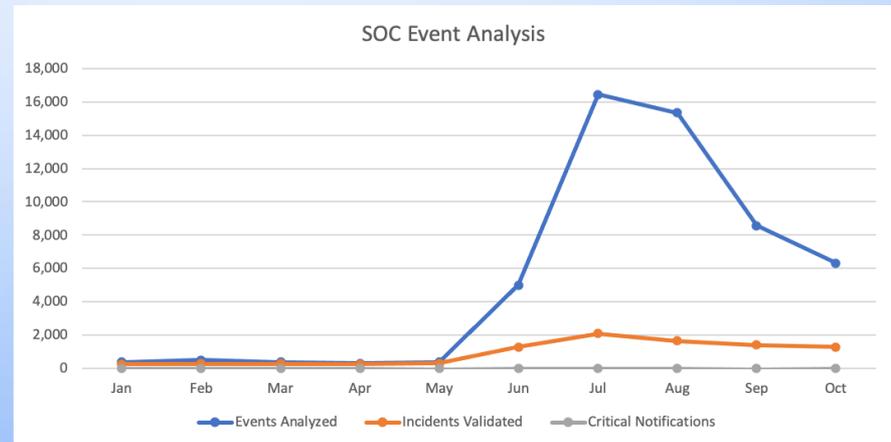
Much of this happens after any significant event.

The main differences here were scope and duration.



...but Hard to Answer at the State Level

- Changes in the environment not related to COVID impact the metrics
- Most significant change: Fortinet firewall replacement (June 2020)
- Apples-to-Apples comparison is nearly impossible for network analytics





Drilling Down a Bit

Network Security Metrics	Jan-Mar 2019	Jan-Mar 2020	Apr-May 2019	Apr-May 2020	Jun-Oct 2019	Jun-Oct 2020
MSS SOC - Nr. of Security Incidents Analyzed ["events"]	1,117	1,294	520	712	1,772	51,660
MSS SOC - Nr. of Security Incidents Validated Positive	810	858	371	604	1,186	7,813
MSS SOC - Nr. of Critical/Emergency Notifications [sent to OIS]	10	15	11	1	8	29
MSS SOC - Nr. Of Warning Notifications [sent to OIS]	61	47	24	43	83	3,071



Drilling Down Again

Non-Network Metrics	Jan-Mar 2019	Jan-Mar 2020	Apr-May 2019	Apr-May 2020	Jun-Oct 2019	Jun-Oct 2020
All Sources - Nr. Of Compromised Email Accounts <i>[sent to OIS]</i>	11	36	27	5	35	12
OIS RT - Nr. of All Security Incident Alerts Sent By OIS	66	41	21	18	77	43
OIS - Nr. of Incident Reports (CSIRs) Submitted From Agencies	53	17	14	4	41	14



Executive Order on Cyber Security

- Issued on May 12
- Key Elements:
 - Remove barriers to information sharing – Private-Public and Public-Public
 - Modernize Fed Govt cyber security, with emphasis on Zero Trust and standardizing controls
 - Enhance software supply chain security
 - Establish cyber incident review board
 - Standardize Fed Govt cyber response playbook
 - Improve detection of vulnerabilities and incidents, with emphasis on EDR
 - Improve Fed Govt investigation and remediation capabilities



Thank You

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Questions?



Slide version of CIO Strategy Animation

State CIO, Alan Cunningham



Strategy Summary Tied to Business Objectives

- Vision
- Mission
- Engage
- Enable
- Deliver



Vision

- Enterprise IT Services is committed to making technology transparent



Mission

- To inspire the use of technology in stimulating growth ideas for all citizens



Engage

- Through innovation and leadership by example with regular, proactive, and interactive communications, the State CIO and EITS promote a culture of excellent service for all Nevadans
 - 1. Migrate SMART21 Customer Service
 - 2. Collaboration O365 integration and users
 - 3. Increase Customer Service Visibility through updated procedures and practices
 - 4. Replace outdated Content Management System (CMS) with a Digital Experience Platform (DXP)
 - 5. Continue on our ADA compliance path



Enable

- High-quality, cost-effective solutions are designed to optimize the business needs of our customers. Platforms are implemented to simplify usage and optimize data reuse.
 - 1. Promote State Training – Increase Staff Knowledge.
 - 2. Upgrade microwave and network equipment to secure major agencies, i.e., medical, rural
 - 3. RFP for Statewide Communications Study.
 - 4. Prepare for Statewide Unified Communications.
 - 5. Coordinate State Broadband initiatives.



Deliver

- Provide consistent, secure, and transparent technology resources which enable our citizens to interact with Government agencies efficiently and effectively
 - 1. Risk Analysis
 - 2. Security Awareness Training
 - 3. Multi-Factor Authentication
 - 4. Cost Optimization Project
 - 5. Contract Management
 - 6. Eliminate Redundancies