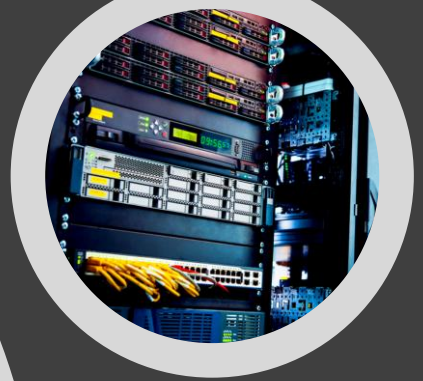
EXHIBIT F

DIVISION OF INFORMATION SYSTEMS

Yessica Jones
State CTO / Director



What are some of our services?

AGENDA

INITIATIVES

PROJECTS COMPLETED

CYBERSECURITY

CDO OFFICE

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INITIATIVES

K-12 Broadband Upgrade
1Mbps / per user

Data Center Optimization

20 DEPARTMENTS/DIVISIONS

- ADE
- ADEE
- ADH
- ADLL
- ADOA
- ADOL
- ADPHT
- ADVA
- AETN
- AGO
- APERS
- Commerce
- DFA
- DHS
- DIS
- DOC
- DPS
- DTSS
- IG
- PHARM

1039

Business Applications Identified

2932

Servers mapped to business applications

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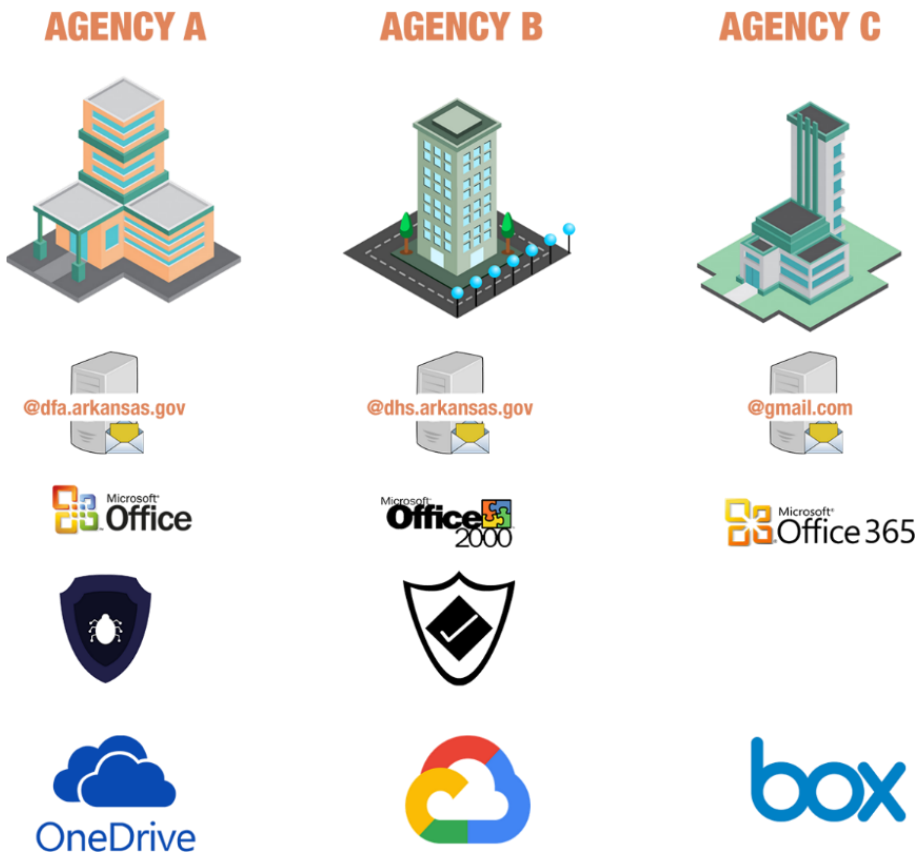
Data Validation

- Ensured all applications are accounted for.
- Reviewed Criticality, Compliance, Contact information, DR info.
- Ensured all servers are accounted for and complete missing data (Compute, OS)
- Implemented process to maintain data updated throughout the project

VoIP

- **As of today DIS has deployed 16,000**
- **$118,000 annual savings of identified stations not in use.**
- **21 DHS County Office legacy phone systems converted to VoIP.**
- **$272,200 annual savings in contract negotiation to reduce rate for 150 analog lines.**

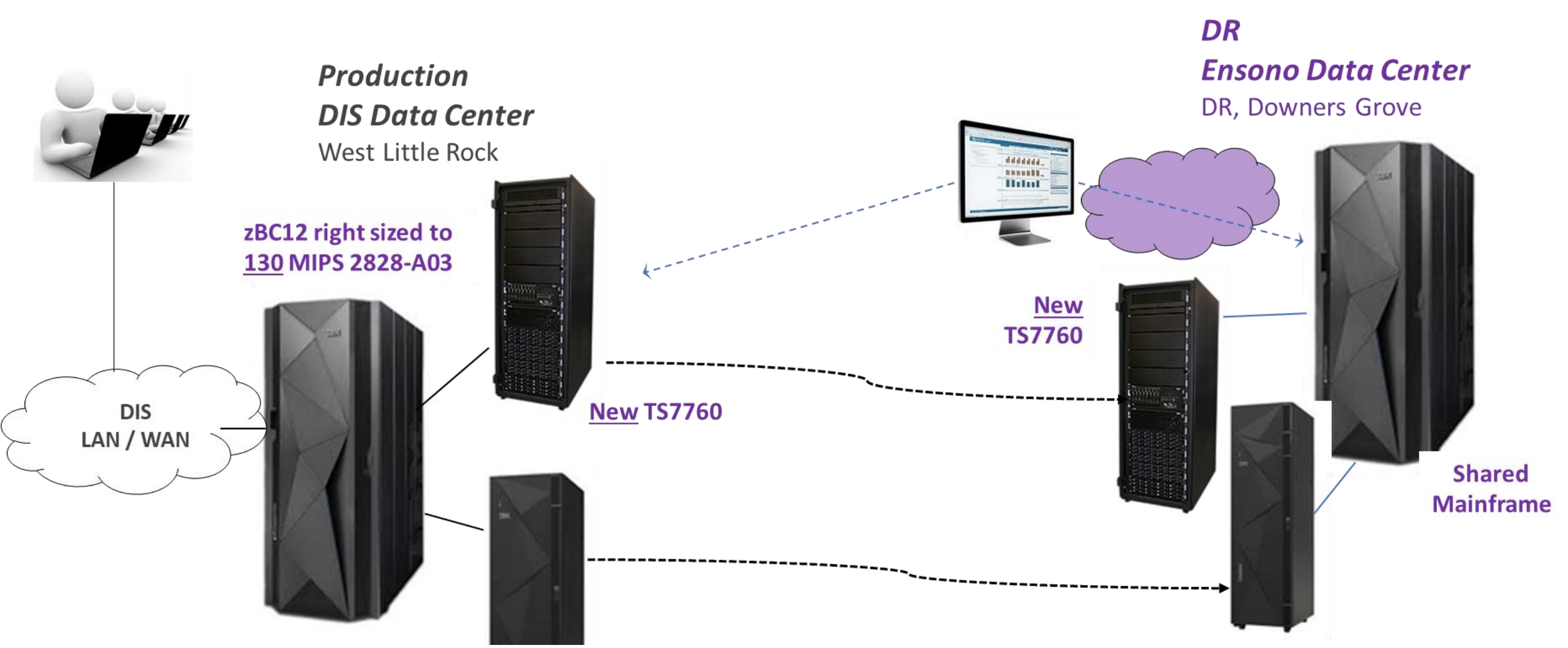
Microsoft Office 365



PROJECTS COMPLETED

Agencies Broadband Upgrade

- **$4.8M savings per year**
- **Some agencies received 10x the bandwidth for the same price they were paying**
- **Total of 542 sites upgraded**

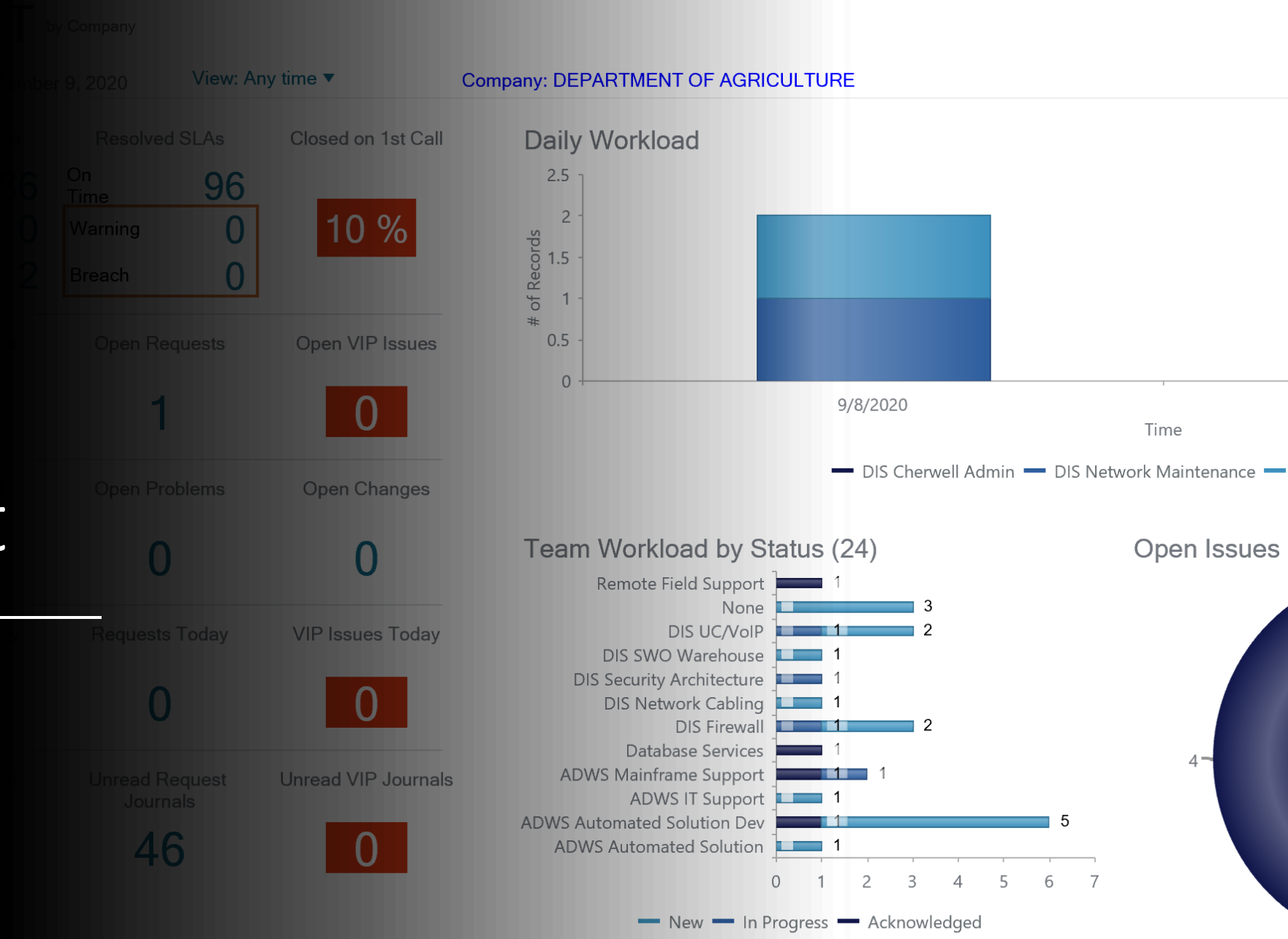


Mainframe as a Service

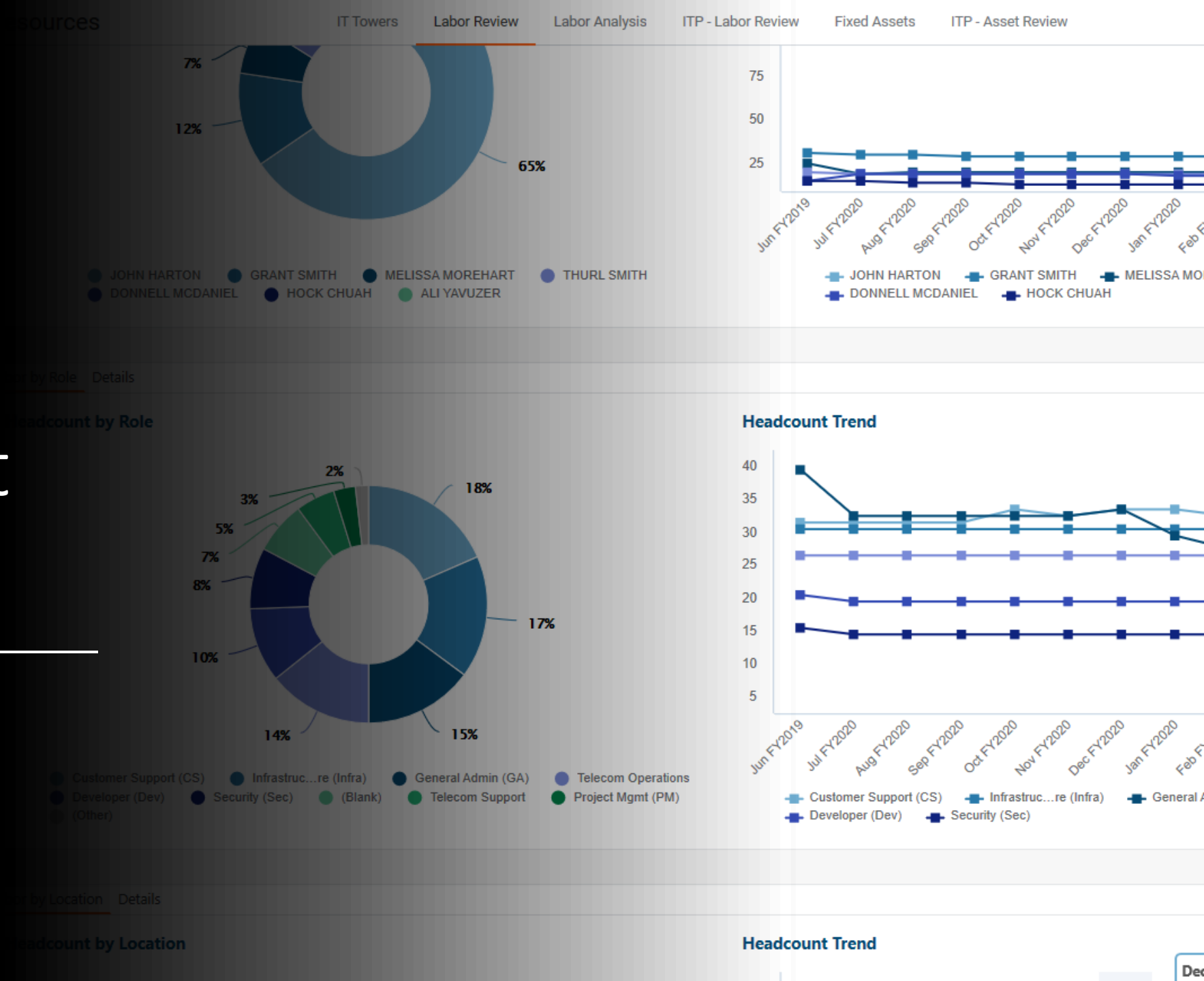
Endpoint protection and monitoring solution

- **Endpoint protection software and 24/7 monitoring rollout to all Departments.**
- **Over 29,000 endpoints are being monitored from 24 departments, boards, and commissions.**
- **In the month 966 events of possible malware were investigated.**

IT Service Management



IT Financial Management System



CYBERSECURITY

Cybersecurity

- Nolan Leatherwood named Chief Information Security Officer.
- Central role in the coordination between departments and cyber insurance to respond to cyber incidents.
- Manage over 1000 firewalls for state agencies and K-12 schools
- Cyber strike team consisting of staff from all Departments.
- Over 4 billion logs from systems and devices are collected in a central system for analysis and alerting.
- Online security awareness training provided to all executive branch staff

Cybersecurity

Daily averages

- Content filtering blocks nearly a half a million requests for malware sites
- Firewalls block nearly 1 quarter billion internal and external network connections
- Email spam filtering blocks over 300,000 emails.

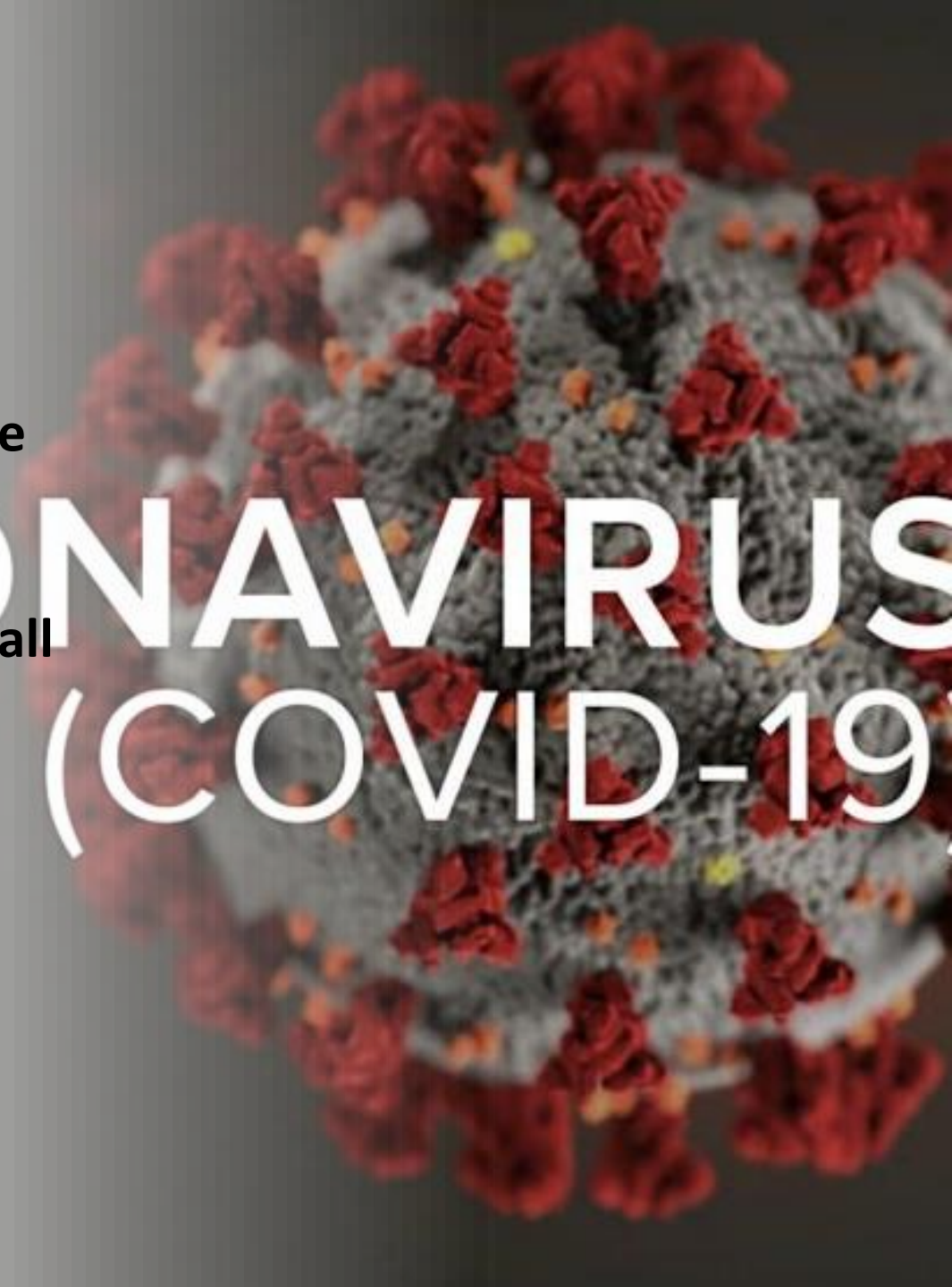
Cybersecurity

Monthly averages

- 10 instances of potentially malicious applications are investigated
- 138 malicious IP addresses are added to block lists for access to the state network
- 3.2B attempts from malicious IP addresses are blocked from gaining entry to the state network every month
- 24 malicious phishing attempts are reported and blocked

DIS EFFORTS

- Setup call centers for DWS UI and PUA
- Setup COVID and contact tracing hotline for ADH
- Setup additional lines for ADE COVID K-12 resource Hotline
- Deployed softphones for remote workers
- Expanded infrastructure to handle the increased call volumes for DWS
- Expanded infrastructure to allow for remote work
- Provided videoconferencing licenses



Joshua McGee
Chief Data Officer

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INFORMATION SYSTEMS

Statewide Longitudinal Data System (SLDS)

- Act 912 of 2017 established the Data and Transparency Panel and the Chief Data Officer (CDO) position.

- Act 936 of 2019 requires the Data and Transparency Panel to:

  (7) Develop a unified longitudinal system that links existing siloed agency information for education and workforce outcomes to continuously conduct a business systems assessment to:

  (A) Help the leaders of this state and service providers develop an improved understanding of individual outcomes resulting from education and workforce pipelines in Arkansas;

  (B) Identify opportunities for improvement by using real-time information; and

  (C) Continuously align programs and resources to the evolving economy of this state.

- SLDS links administrative data across state departments/divisions so that it can be used to improve policy, programs, and practices through evidence-based collaboration.

Data and Transparency Panel

- Key points of agreement and areas of work:
  - Arkansas needs SLDS capacity to facilitate linkage of data across departments/divisions.
  - The Div. of Info. Systems (DIS) and office of the CDO are leading SLDS development.
  - A federated data integration model will be used where practical, wherein participating agencies maintain control of the data in their source systems but agree through MOUs or DSAs to share data.
  - A data governance framework is being developed by key department stakeholders to manage the security and accessibility of data.
  - The SLDS infrastructure will be implemented in the state data center and managed by DIS.
  - Data integration will be implemented and managed by DIS.
  - A self-service business intelligence data access model will be created for authorized and authenticated access to data for research, decision & policy making, and operational support.

Economic Security Report (ESR)

- The ESR is an example of how the state can leverage its SLDS capacity to integrate valuable data and better inform policy, practice, and the public.
- The ESR is required by Act 852 of 2015
- The report uses linked administrative data from the Division of Workforce Services (DWS) and Division of Higher Education (DHE).
- The ESR summarizes workforce outcomes by higher education entity, program, and certificate/degree level, and is:
  - provided to institutions, students, and the public;
  - used by DWS as valuable labor market information; and
  - used by DHE to help evaluate certificate/degree programs.
- DIS has worked with DWS and DHE to enhance the ESR by:
  - Dynamically generating the report, reducing cost and increasing flexibility; and
  - Providing a self-service platform that allows authorized users to perform their own analysis.

What's next?

- Finalize the DWS-DHE-DIS data sharing agreement
- Develop an enhanced ESR for release in 2021 that includes elements like:
  - Improved analytics and data visualizations and
  - Better interface for higher ed institutions and potentially the public
- Investigate opportunities to use linked administrative data to support COVID-19 response and recovery.
- The CDO's office will continue collaborating with state departments/divisions to:
  - Build the state's SLDS capacity;
  - Bring more datasets into the SLDS;
  - Add the capacity to use federal, other state, and private sector data;
  - Surface pressing needs and important questions; and
  - Build the analytics capacity to use data to help make the state more efficient and effective.

Questions?

Yessica Jones
yessica.jones@arkansas.gov

Josh McGee
joshua.McGee@arkansas.gov

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