

# ADS / AOT

Partnership & Projects

# Agenda

- ▶ ADS & AOT
  - ▶ Partnership & Planning
  - ▶ ADS Vision, Mission & Goals
  - ▶ Dashboard / Report Cards
- ▶ Notable Projects - Highway
- ▶ Notable Projects - DMV
- ▶ DMV Systems Integration - Current & Future State

# ADS Partnership with AOT

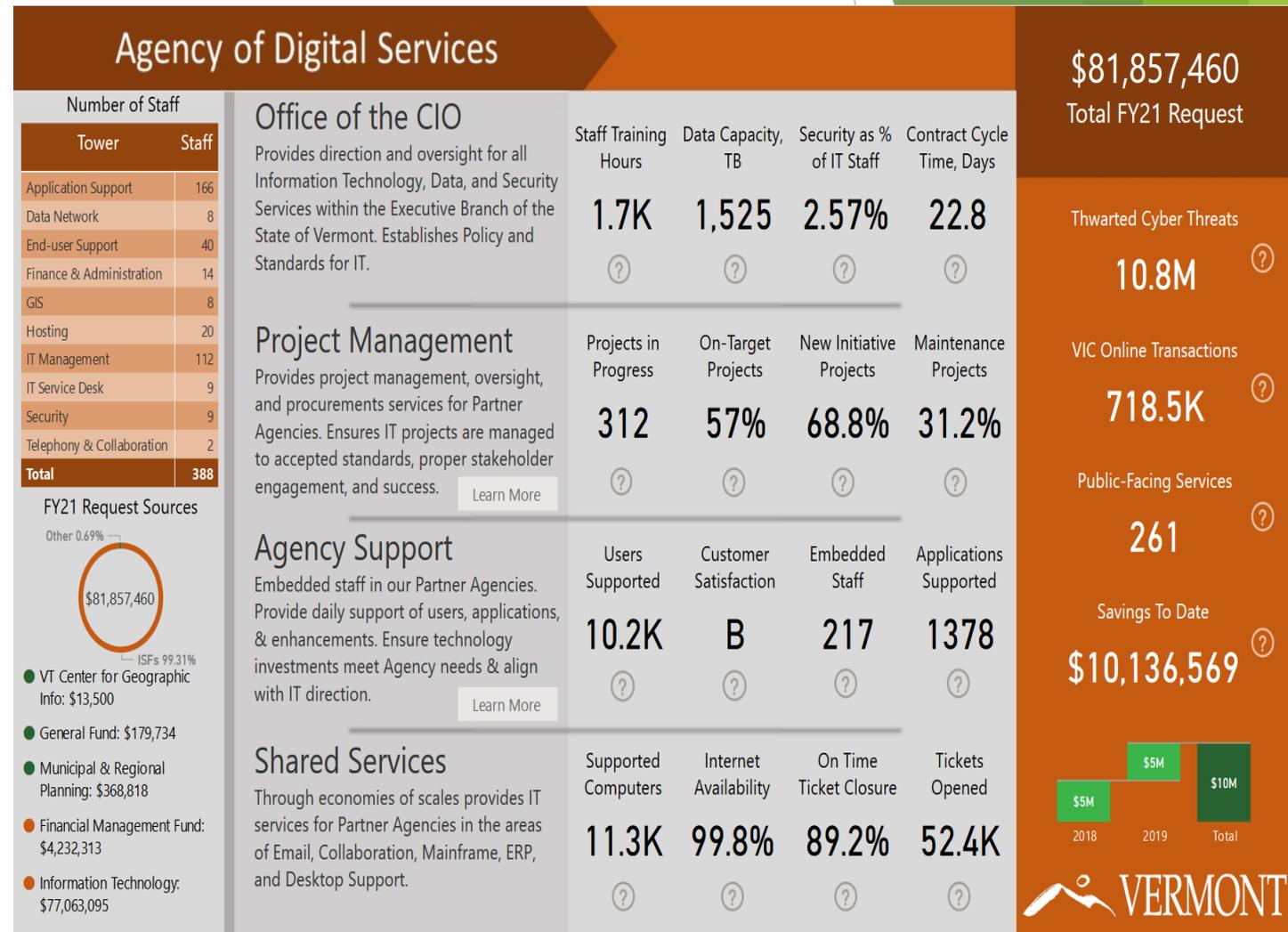
- ▶ Projects vetted at multiple points
  - ▶ Exploration/Initiation: AOT engages with Agency IT Leader and EPMO Portfolio Project Manager
  - ▶ IT-ABC form - Agency signoff needed to proceed to next step which is...
  - ▶ Procurement Advisory Team (PAT)
    - ▶ ADS, Attorney's General Office, BGS Procurement, Risk Mgmt
    - ▶ IT-ABC forms, Requests for Proposals, Contracts & Amendments, Sole Source waivers (rare)
    - ▶ CIO approval to proceed forward
- ▶ Portfolio Management Team (PMT)
  - ▶ AOT & ADS
  - ▶ Prioritizes project queue across the agency
    - ▶ Recommends to AOT Executive Team
  - ▶ Funding considerations discussed
- ▶ IT Plan - Rolling 5-year investment/work plan
- ▶ ~44 mostly embedded IT resources supporting AOT
  - ▶ 30 ADS AOT IT Application Development & Support - 100% co-located
  - ▶ ~14 from ADS central (Enterprise Proj. Mgmt. Office, Shared Services, Chief Technology Office) - mostly co-located

# ADS Vision, Mission, & Goals

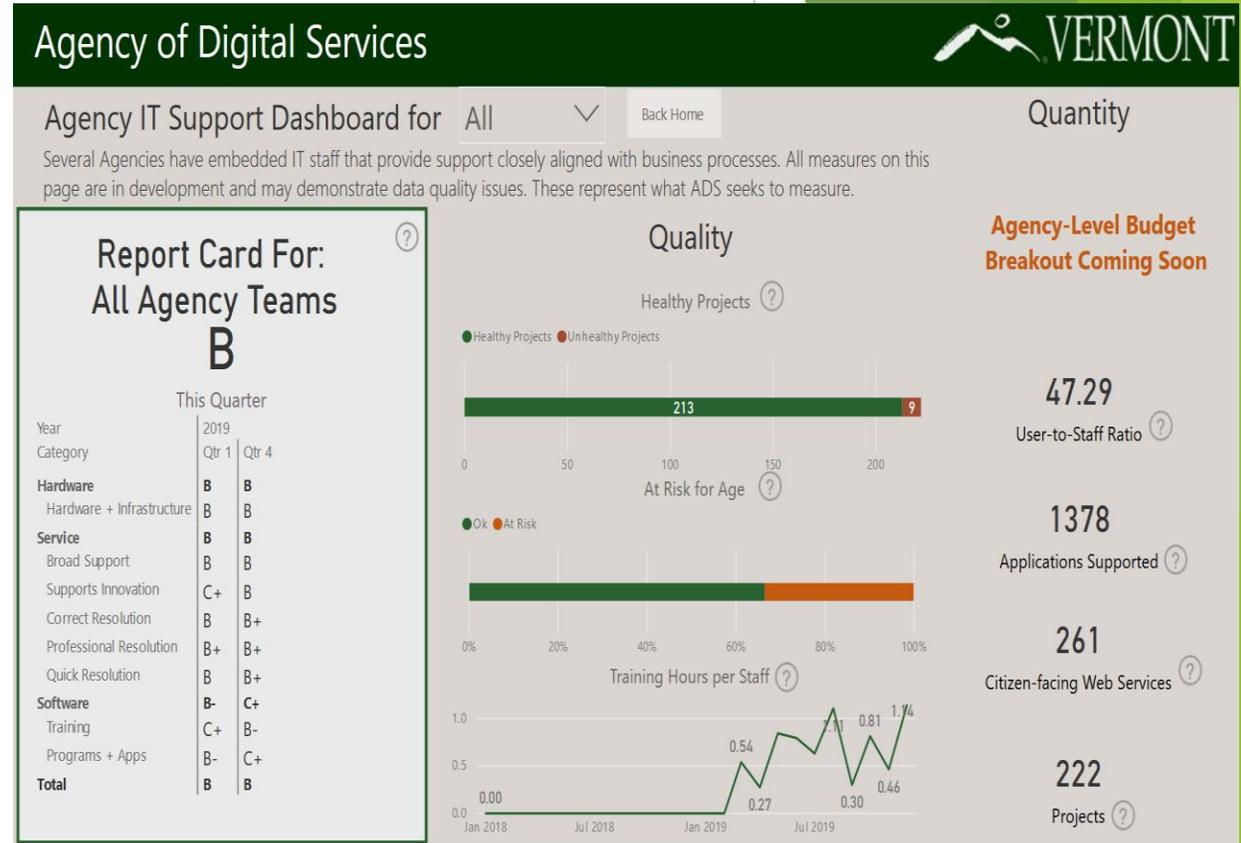
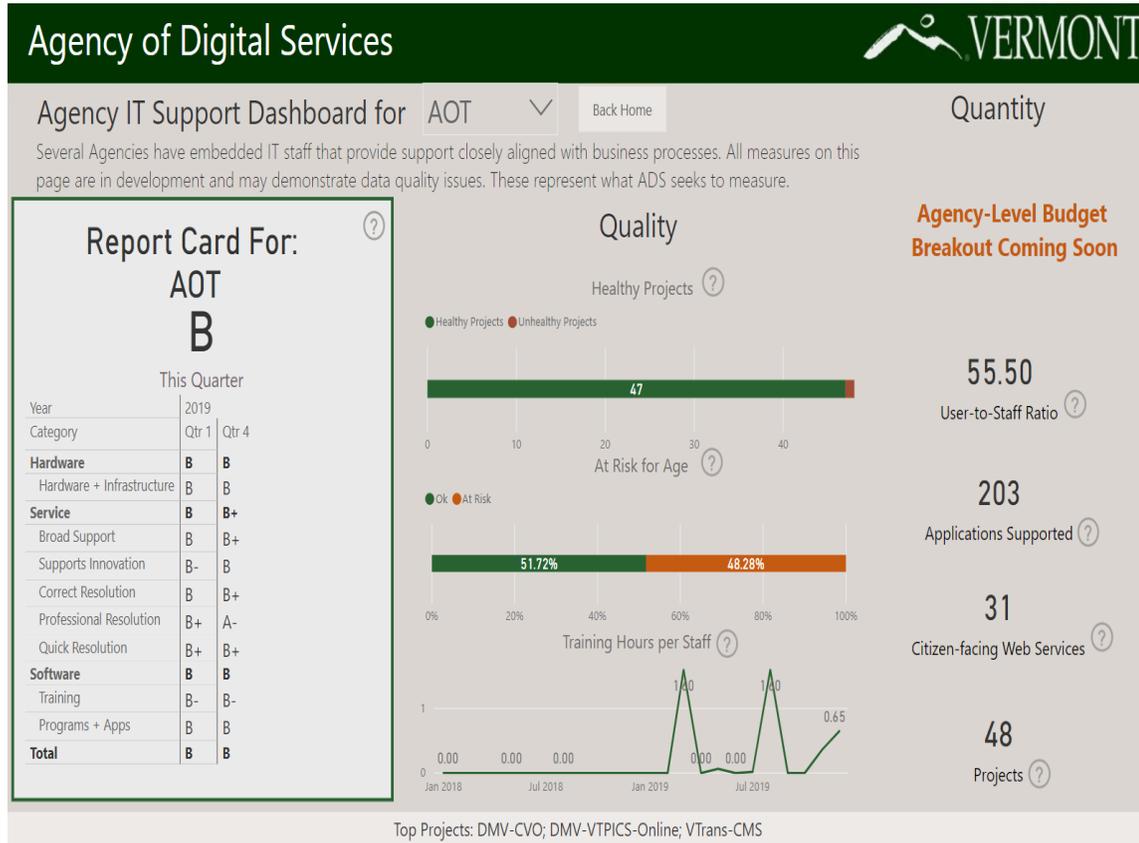
- ▶ **MISSION** To provide government services that are secure and easily accessible to all people doing business and interacting with the State of Vermont.
- ▶ **VISION** To collaborate with our partners in state government to deliver simple and intuitive technology solutions that improve the lives of Vermonters.
- ▶ **GOALS**
  - ▶ *IT Modernization:* Our goal is to increase automation and reliability of the services we deliver to Vermonters
  - ▶ *Improve Vermonter Experience:* Our goal is an improved Government experience for Vermonters.
  - ▶ *Improve Cyber Security:* Our goal is to provide continuous, effective defense of the State's Information network.
  - ▶ *Improve IT Budget Reporting:* Our goal is to support creation of a comprehensive Executive Branch IT budget with greater accuracy.

# ADS Dashboard & Report Cards

- ▶ Key indicators reported by the Agency IT leaders and ADS central office inform dashboard
- ▶ ADS Partner Survey responses inform the report card
- ▶ Ability to drill down into the data
- ▶ [digitalservices.vermont.gov/dashboard](https://digitalservices.vermont.gov/dashboard)



# ADS & Agency IT Support Report Cards

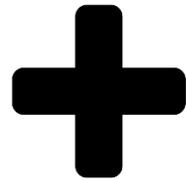


# CMS (Construction Management System)

## Overview

Current Software: AASHTOWare Project Client-Server

- Outdated, 20+ year old, **unsupported** software
- Multiple software licenses for multiple modules
- Requires over 30 separate additional systems to meet business need
- Will fail due to operating system and security updates



DocExpress



Several Access databases



BidExpress



Several Excel spreadsheets



Mobile Inspector



eBooks

& more...

- Estimator
- Bids
- PES/LAS
- BAMS/DSS
- SiteManager
- LIMS

Construction & Materials Bureau

# CMS (Construction Management System)

## Overview

New Software: ExeVision iPDWeb & iCXWeb

- Web-based
- Integration with existing AOT systems (e.g. VPINS)
- 30% of annual licensing fees reserved for enhancements
- Increased automation
- July 2018: Signed \$6,073,645 contract with 
- Comprised of 5 modules:
  - Estimation
  - eContracting
  - Materials
  - Construction
  - Civil Rights



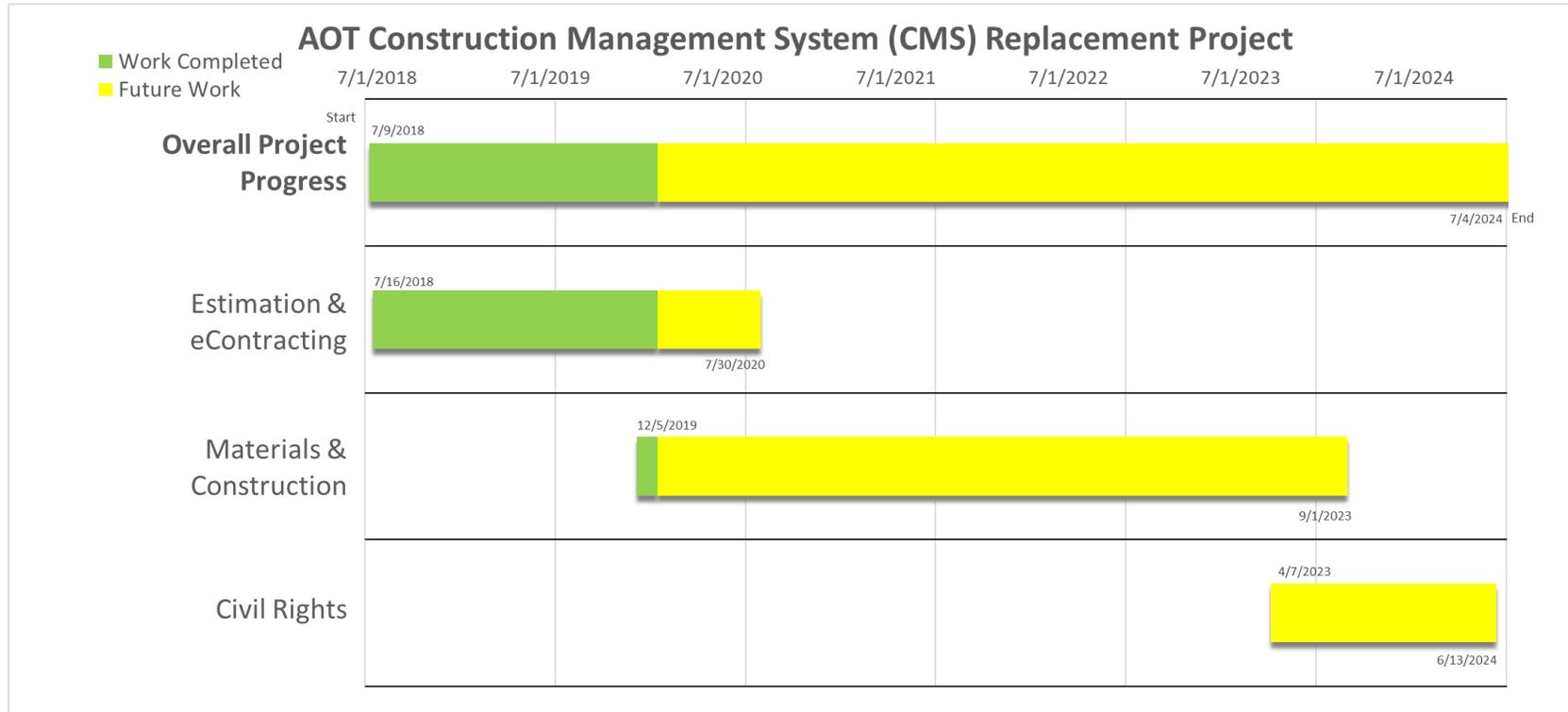
Construction & Materials Bureau

# CMS (Construction Management System)

## Opportunities

- New software will benefit:
  - AOT: Contract Administration, Construction, Estimation, Materials, Civil Rights, Asset Management, Finance
  - Outside vendors (contractors, material suppliers, etc.)
- All agency users will have readily available, enhanced, integrated access to detailed construction information and data
- Improved business process = saving time and money
- Aligns with overall agency e-Construction efforts to increase the quality, efficiency, and collaboration with the construction industry, while increasing transparency for all stakeholders.

# CMS (Construction Management System) Schedule



► **First Deploy: July 2020**

- Estimation
- eContracting

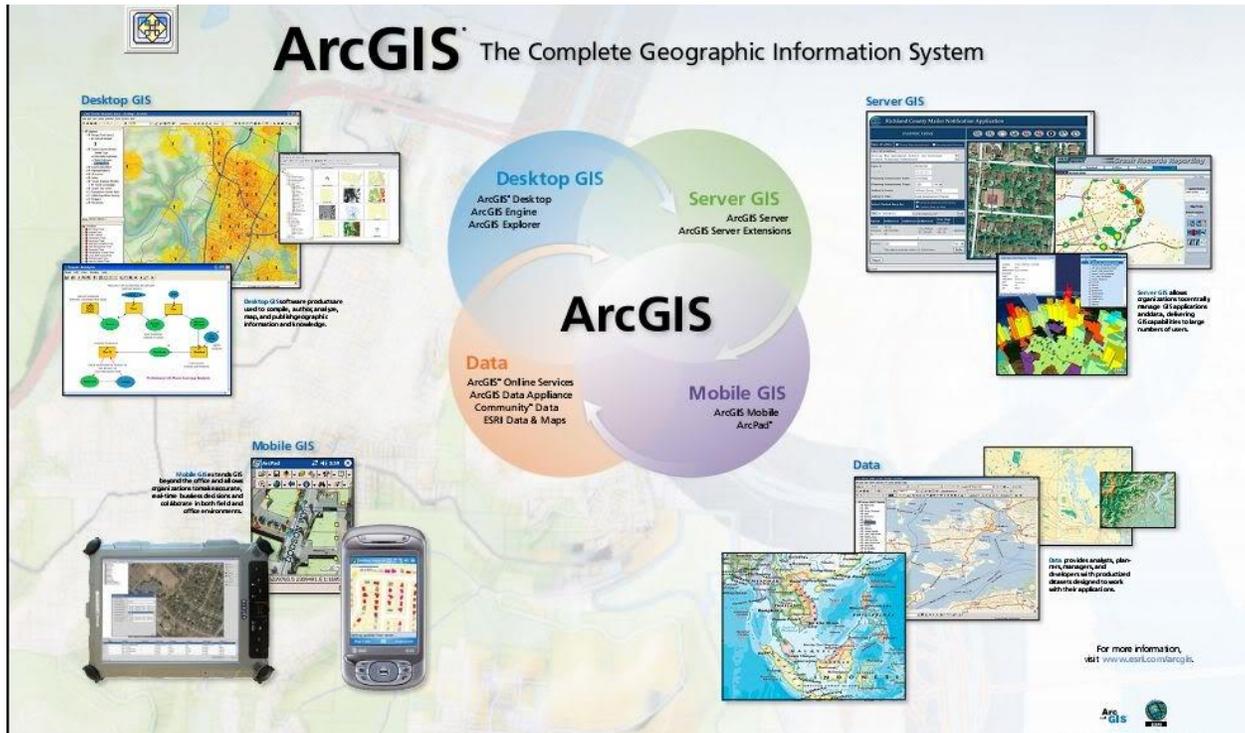
■ **Second Deploy: Sept 2023**

- Materials
- Construction

■ **Third & Final Deploy: June 2024**

- Civil Rights

# ArcGIS & Survey 1-2-3

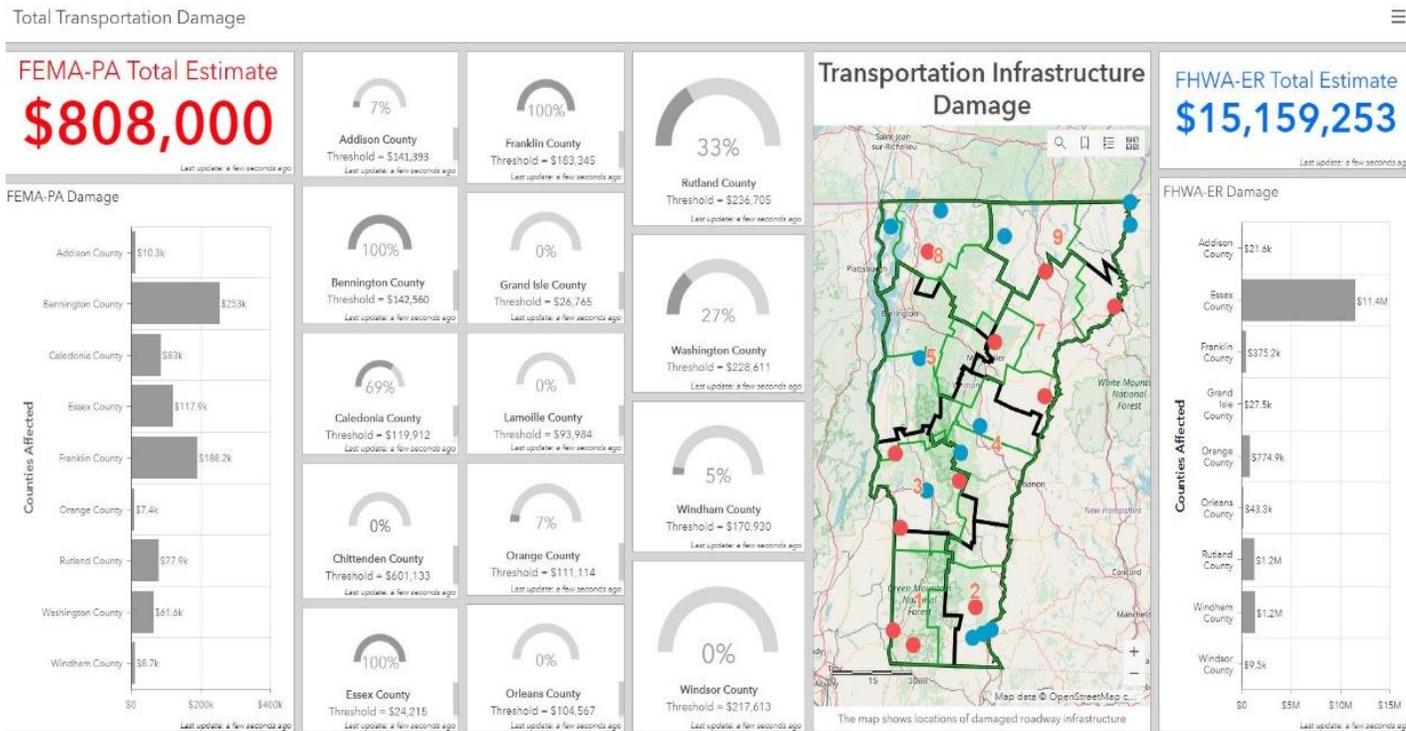


What is GIS? A geographic information system (GIS) is a computer system for capturing, storing, analyzing, and displaying geospatial data. ESRI's ArcGIS software is an industry standard which includes mobile, web, desktop and server GIS options.

- Mobile GIS - iPads, Protective Accessories and a cellular data plan allows users to collect and view data in the field.
- Web GIS - An Organizational ArcGIS Online Subscription allows users to edit, analyze and display GIS data in a web environment.

# Storm Damage Assessment

- ▶ Collaborated with VTrans Maintenance to develop a damage assessment collection application using ESRI's GIS mobile platform Survey 123.
- ▶ Tested during the CAT4 scheduled mock statewide exercise



12:48 Tue Jan 14 LTE 18%

Damage\_Assessment

Scroll to the Location of the Damage:

44°12'N 72°34'W ± 65 m

Date of Event: \*  
This Will Default to the Current Day  
Tuesday, January 14, 2020

Storm Name:  
This Will be Determined Before Each Event.  
CAT4

What Caused the Damage? \*  
Select as Many as Necessary.

Select the District the Damage is in: \*

Is the Damage to Town or State Infrastructure? \*

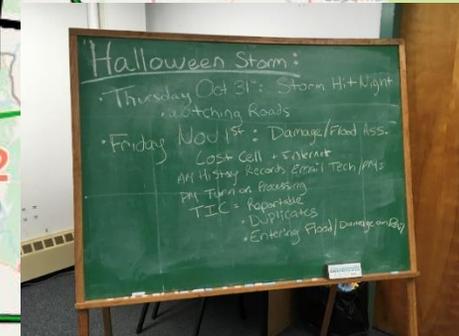
Has a Bridge Been Damaged? \*

Is the Road Closed? \*

Anticipated NEPA Permitting?  
A National Environmental Policy Act Permit is required for work that is non-emergency and will improve the pre-disaster conditions of the site. If you are not sure if a permit will be required, skip this question.

# Halloween Storm 2019

- ▶ Estimated Damage: \$6.8 M
- ▶ Statewide Crews and Technicians were heavy deployed to the Northwest.
- ▶ Damage was assessed throughout the weekend on state and town roads.
- ▶ Road crews worked to stabilize damage to allow travel.



# VAMIS - Vermont Asset Management Information System

What is it??

A tool to make better transportation investments decisions.

How??

Enhance transportation decisions with improved access to data and information

Integrated maintenance and construction data that enables the Agency to track costs down to the asset level.

# VAMIS - Vermont Asset Management Information System

## 20 Assets

Pavement

Bridges

Large Culverts

Small Culverts

Stormwater

Ditches

Guardrail

Type B Signs

Signs

Retaining Walls

Buildings

Transit

Aviation

Shoulder Width

Rail

Fleet Vehicles

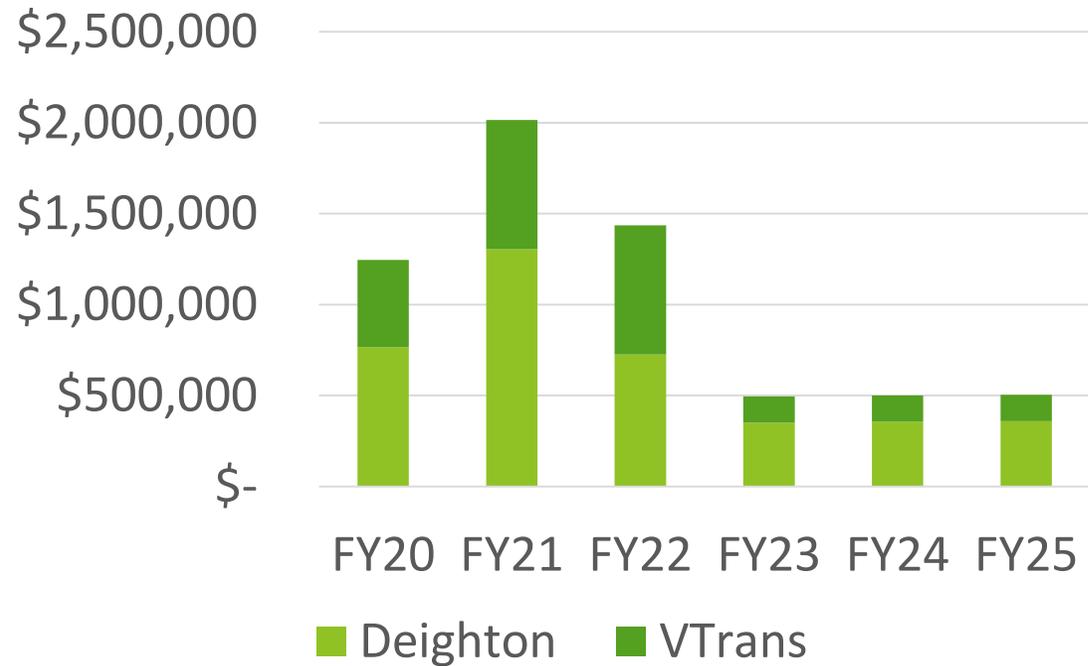
Park-n-Rides

Rumble Stripes/Strips

Rail Rock Slopes

Signals

# VAMIS – Cost Estimate



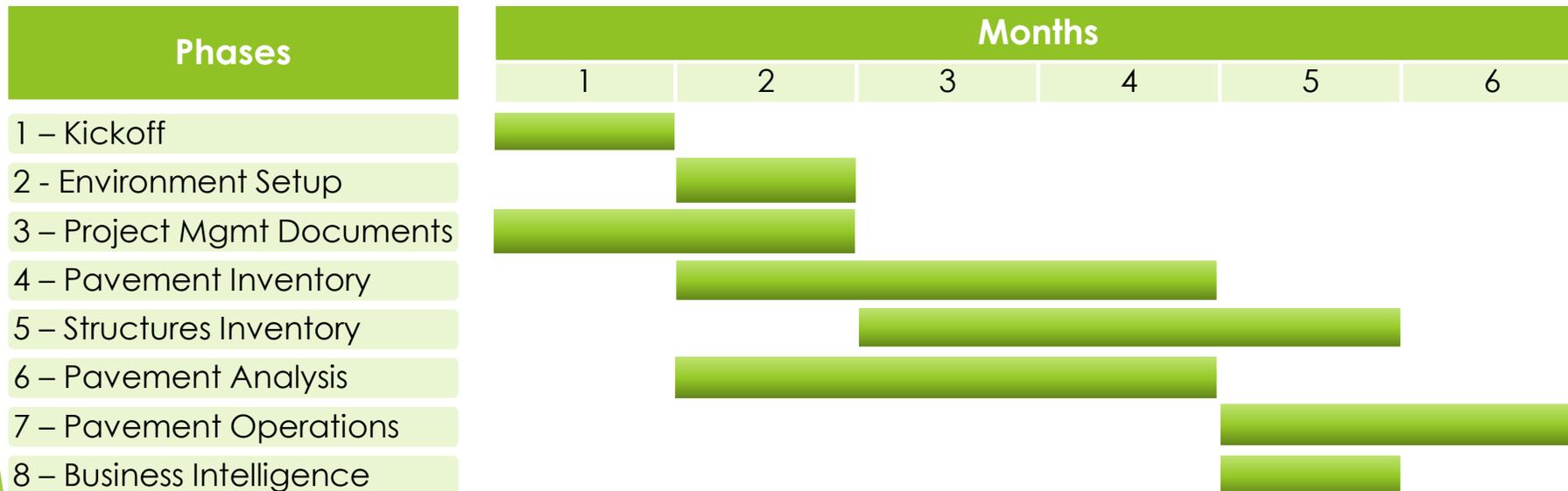
Total Cost: \$6.2M

VTrans Personnel Costs = \$2.34M

Deighton Costs [Software Solution & Implementation Services] = 3.86M

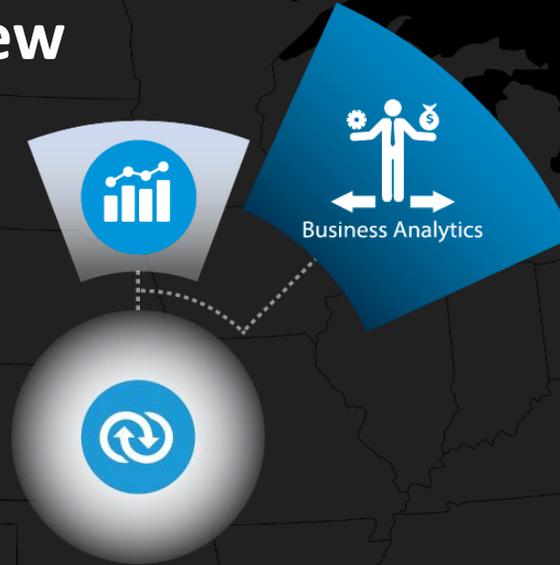
# VAMIS – Schedule

- 24 Month Implementation Schedule
- Agile Product Development



## Scope: Solution Overview

- Condition
- Decision Trees
- Budget Analysis
- Deterioration Modelling
- Trade-Off Analysis
- Cross Asset Optimization



# Scope: Solution Overview

- Service Requests
- Inspections
- Work Orders
- Resource Management
- Preventative Maintenance
- Reporting



# Scope: Solution Overview

- Service Requests
- Inspections
- Work Orders
- Resource Management
- Preventative Maintenance
- Reporting
- Mobility



## Scope: Solution Overview

- Quicker Decisions Easy to Read
- KPIs
- Central Dashboard
- Ease Of Use
- What-if Scenarios



# DMV Commercial Vehicle Operations (IFTA/IRP & Fuel Tax Collection)

*International Fuel Tax Agreement (IFTA) & International Registration Plan (IRP) and are cooperative programs to collect and distribute registration and fuel tax revenue between member states and Canadian provinces.*

- ▶ Implementation of a full replacement of the current CVO IFTA, IRP & motor fuel tax (rental, gas, diesel, aviation) administrative system. Will transform the current CVO system from paper-based manual operation to an online solution.
- ▶ Finalizing Testing & Training - Now
- ▶ Conducting stakeholder outreach
- ▶ Go live - May 2020
- ▶ \$4.5m

# Access 97 to 2016 Migration

- ▶ Migration of multiple DMV applications, that aren't otherwise being replaced at this time, from an obsolete, unsupported version of Microsoft Access to meet current standards; reducing risk of data loss and security concerns.
- ▶ Current Status:
  - ▶ 14 Access applications have been successfully migrated to 2016
  - ▶ 5 left to be migrated to Access 2016
  - ▶ 4 applications will be replaced by CVO system
  - ▶ 2 remaining are highly volatile and can't be migrated - will remain in current form until core modernization project is completed

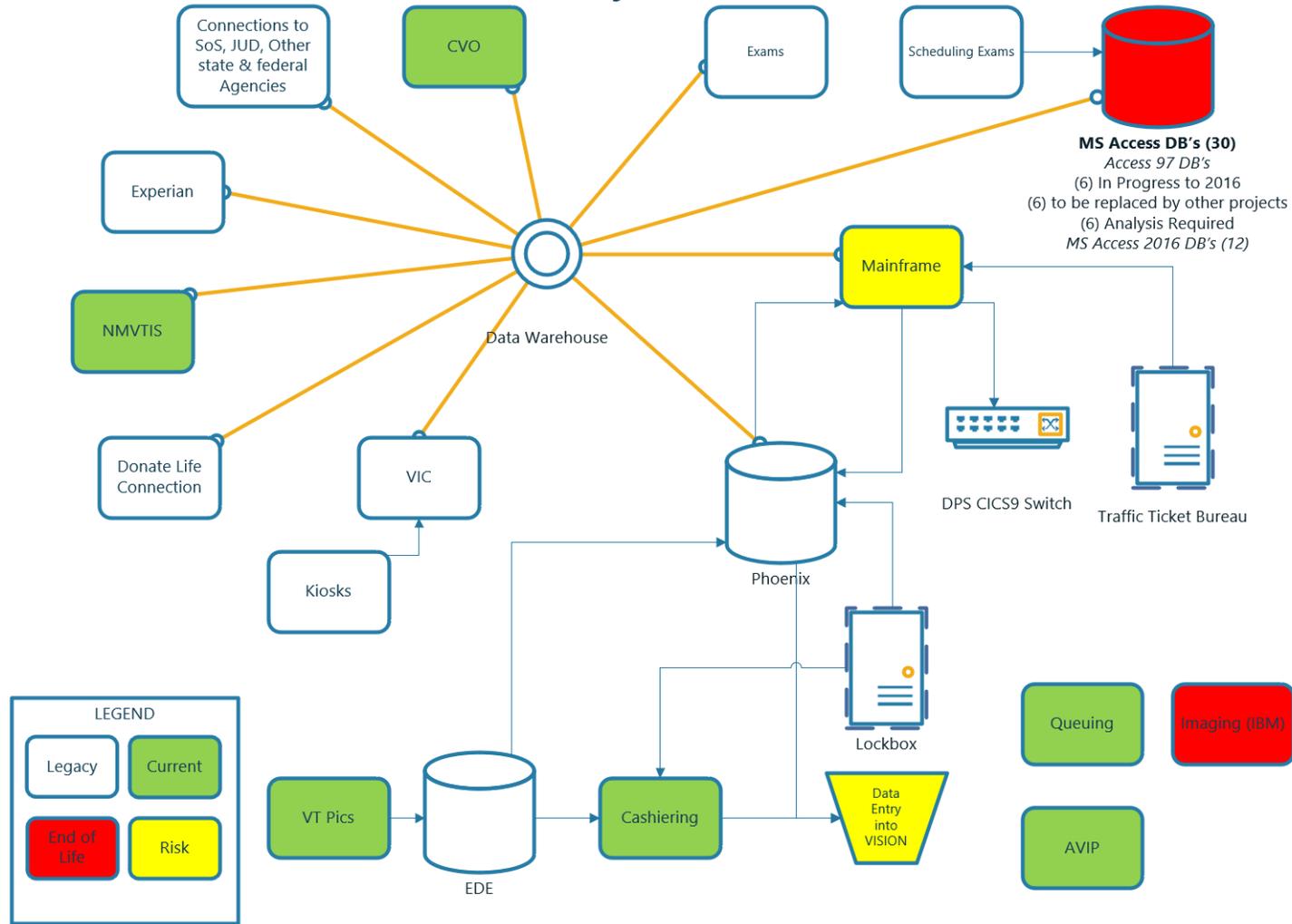
# National Motor Vehicle Title Information System

- ▶ **NMVTIS** - allows a titling entity (VT DMV) to instantly verify the information on a title against the electronic data from the state that issued the title. Designed to protect consumers from fraud and unsafe vehicles and to keep stolen vehicles from being resold. NMVTIS is also a tool that assists states and law enforcement in deterring and preventing title fraud and other crimes. More information on NMVTIS can be found [here](#).
- ▶ **Current Status**
  - ▶ \$123k Award granted towards \$196k impl costs
  - ▶ Go live May 30, 2020
  - ▶ ADS & DMV receiving detailed training over next month

# Future DMV Projects

- ▶ Electronic Oversize/Overweight permitting system
  - ▶ Meeting with Stakeholders
  - ▶ Completed RFI
- ▶ Core System Replacement
  - ▶ Strategic goal to have plan complete by 2025
- ▶ Commercial Vehicle Information Exchange Window
  - ▶ Centralized dashboard creates and displays through motor carrier profile
  - ▶ Aggregates information gathered from various state and federal databases
  - ▶ Receives data from roadside inspection program
- ▶ DMV Exam System Upgrade/Replacement
  - ▶ Developing IT-ABC Form
  - ▶ Goal is to have RFI by June 2020

# Current DMV Systems Architecture



# Integrated DMV Services

