



Data Security and Operational Performance of Montana's Computer-Assisted Mass Appraisal and Tax System (Orion)

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Orion is Essential to Montana's Property Tax System

- **977,000+** properties of **all types**

- **Ownership, maps**, legal descriptions, **sketches**, pictures, sales agreements, appraisal dates, appeals, and **owner information**.
- Produces taxpayer **assessments notices** and report County assessed values by **statutory deadlines**.
- **20%** of state revenues and **90%** of local government revenues. **\$1.75 billion** base on **Orion's data**.

Summary		
Primary Information		
Property Category: RP	Subcategory: Residential Property	
Geocode: 05-1887-25-4-15-01-0000	Assessment Code: 0000000913	
Primary Owner:	PropertyAddress: 438 CLARKE ST HELENA, MT 59601	
		
Acres/		Current Assessed
State - 20% of budget		Local - 90% of budget
\$297,158,316		\$1,455,303,211
Goes to ...		Goes to ...
General Fund		Local Schools
University System		County
		County Schools
		City and Towns
		Fire and Miscellaneous

Risks and Objectives



Risk (Uncontrolled Loss of):

- Confidential information
- Damage to reputation
- Loss of knowledge
- Accidents involving work

Example:

- How Orion is or is not well-trained, reliable, confidentially used
- Worth it, or is it a data privacy data? reliability of Orion?

Scope

Stakeholders & Agreements

- Department of Revenue (DOR)
- Property Appraisal Division (PAD)
- Security Office (SO)
- State Information Technology Service Division (SITSD)
- Information Technology Office (ITO)
- The Vendor

Systems

- Orion Computer System (file, application, data servers)
- Companion Systems (application and data servers)
- Infrastructure (network and remote connectivity)

Data Dates

- January 1, 2018 to October 20, 2019

Audit Summary



Orion is supporting the processes it is supposed to.



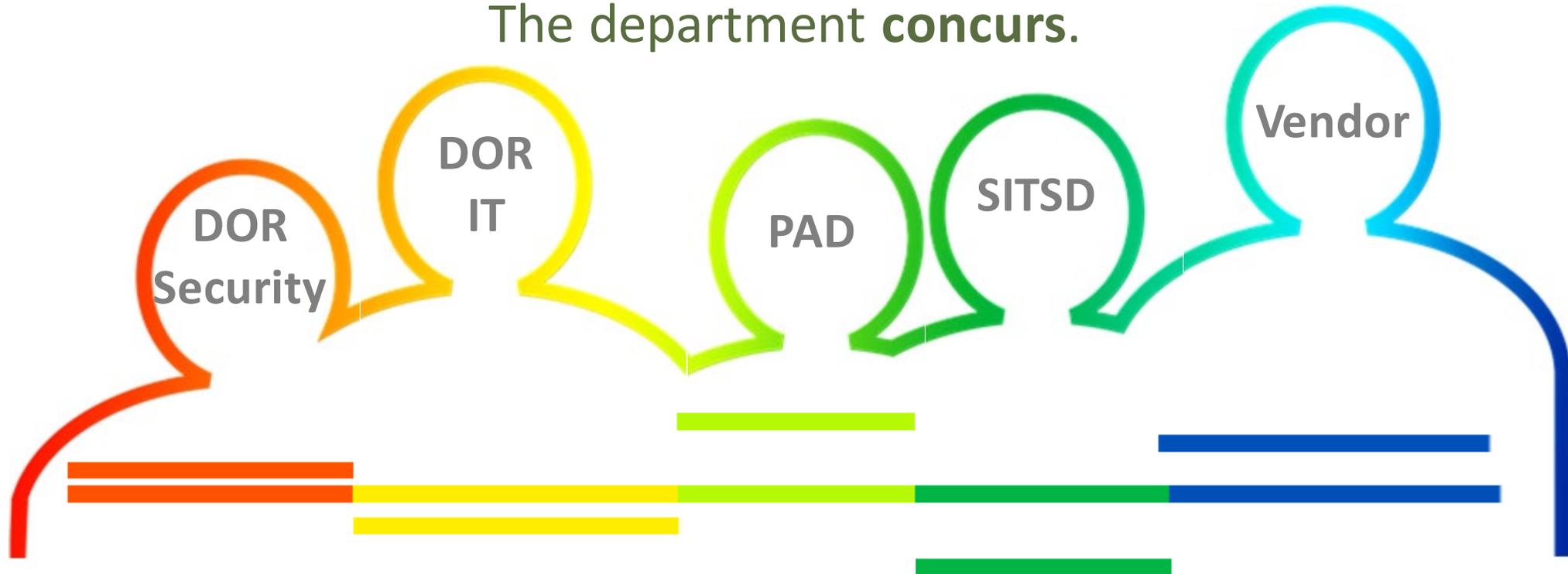
Because **Orion** is the **second most important state IT asset fundamental to local and state revenue**, the partners that maintain Orion need to **focus** on their roles in providing **better service, performance, security controls, and training**.



- **4 concurred**
- **3 conditionally concurred**
- **1 partially concurred**

#1 Establish Objective Baseline Expectations for Orion Performance

The department concurs.



- Each party has high expectations for their own services, but no shared Establish objective expectations for Orion performance
- 14% to 42% of users reported experiencing some performance problems depending on their activity.

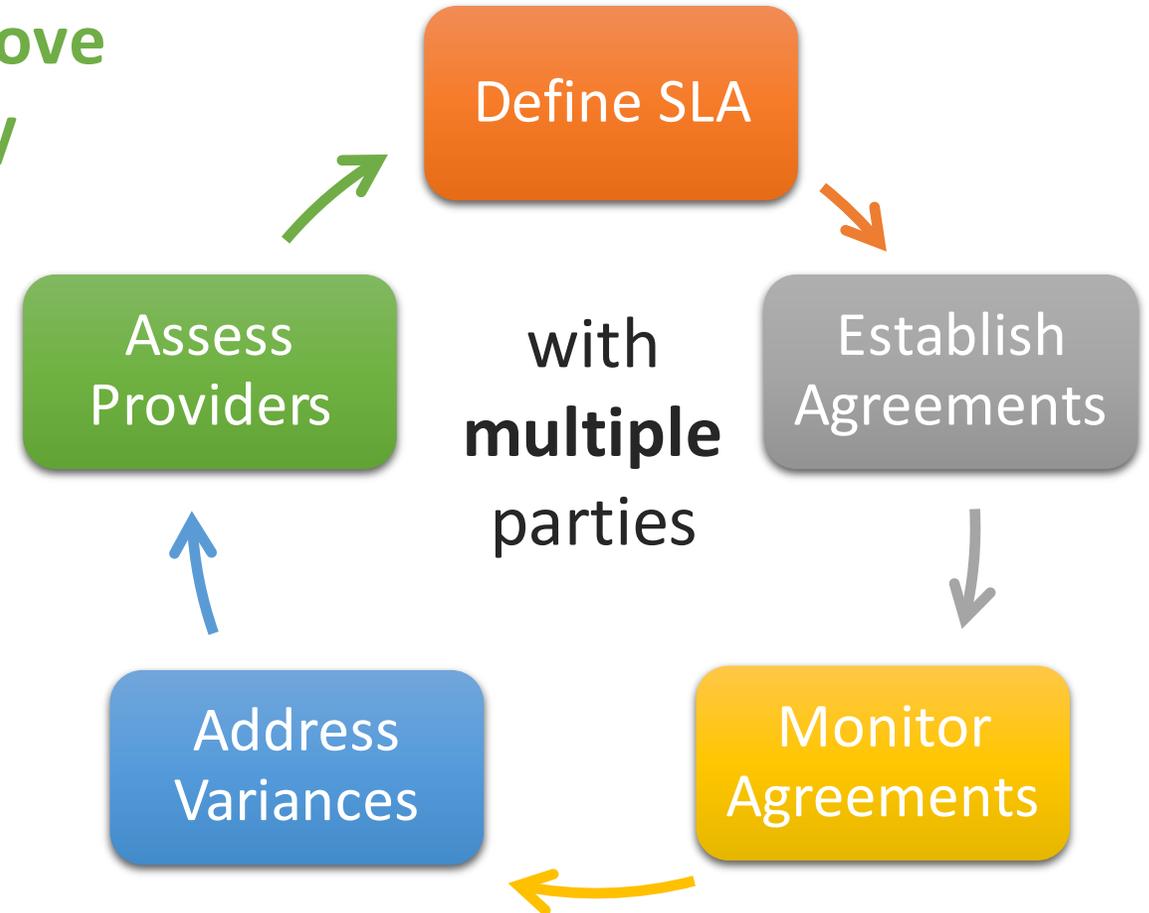
#2 Assign a Team to Manage Agreement Process

The department **partially concurs** pending further discussions with parties on the ability to enter into an enforceable Service Level Agreements (SLA).

Best practice: have agreements to **improve performance** and the means to **formally communicate** with parties involved.

Effect of weak agreements:

- **Frustrations** between parties.
- Accepting **lower expectations** for performance.
- **Dissatisfaction** with delays in resolving issues.
- **Difficulty** determining root causes.



#3 Mitigate Risks of Using Query and Analysis Tool

The department **conditionally concurs** based on a review for FTE request.

- PAD uses **a query and analysis tool** for reports and statistical analysis
- It's **useful** and continues to **grow**.

Effect of uncontrolled growth:

- Crash of the report database
- No users logs. No who, what, when, where, how, why, so....
 - No measures for managing use
 - Easy to take Orion data
 - No coordinated performance improvements



Memory

Memory usage



#4 Prioritize the Orion Security Plan

The department **concur**s.



- Orion security plan was **not updated**.
- Access **logs were not reviewed**.
- Confidential **data was exposed** because some Orion **sub-systems were missing** in plan.
- Orion security plan was **second in priority after** DOR's income tax program.

#5 Monitor Contactor Access and #6 Eliminate Shared Accounts

The department **concur**s.



When we brought issues to the department, they **addressed access issues**, but need more time to address account issues.



- Under certain conditions, **unauthorized users** may enter and make changes in the Orion.
- We found users with access **who were no longer** assigned to work in Orion.
- **Separation of duty issues occurred** when granting access to Orion.
- **One shared account** had administrative control of the Orion. It is shared by vendor and DOR Orion administrators.

#7 Review Orion Data and

#8 Coordinate Targeted Training based on Orion Data

The department **concur**s with coordinating training and targeting training, and **conditionally concurs** with reviews of log & data based on review for FTE request.

• **PA Dfg informed by data**
Orion users report they can target these areas to train are trial and error rather than downstream shadowing coworkers based on actual usage.



Risks and training exist
Benefits: Leverages the interest of users that contained in existing data for forested areas. QA errors as they happen a shadowing someone to training more effective, their goals. Orion well and useful for changing

◆ PAD Field
□ Area of Fit



Thank You



**Department of Revenue, the Property Assessment Bureau,
the Information Technology Office, and the Security Office**

Any Questions?