Data Warehouse Modernization Initiative
Our data journey begins and ends with students
Two Dimensions of Data

DATA IN
Operational & Transactional Data

Databases & Core Systems
- Banner
- Salesforce
- Degree Works
- Hundreds of others

IT
- Extractions
- Integrations
- Loading
- Oracle DBA
- Admin Tools
- Many Others

IR
- Transforms
- Quality Reports & BI
- Toad
- Tableau
- SQL Plus
- SAS
- Power BI

DATA OUT
Analytical & Presentation Data

Visualizations & Publications
- Reporting
- Analysis
- Dashboards
DATA IN
Operational & Transactional Data

Also known as live data, or PROD data. This data fluctuates constantly to accurately reflect real time happenings. – Like a mirror.

DATA SOURCES
OPERATIONAL SYSTEM
OPERATIONAL SYSTEM
FLAT FILES

STAGING AREA

WAREHOUSE
SUMMARY DATA
METADATA
RAW DATA

DATA OUT
Analytical & Presentation Data

Also known as freeze data, snapshots, or RPTP data. This data is copied at key intervals and retained as reference points. – Like a picture.

Visualizations & Publications

What is the UA Data Warehouse?
What is the DW Modernization Initiative?

A vision to support data consistency, definitions, change management, access, reliability and sustainability.

Its goal is to bring this critical system-wide service up to date with enterprise and industry standards.

An approach to sharing, documenting, and honoring each institution's unique data needs.

It’s a team effort to improve the management of our data assets!

~1996
Data Warehouse (DSD) first created

2017
Data Warehouse experiences end of life support issues

2020
Data Warehouse transformed into a Shared Service model.

2022
Data Warehouse Modernization Initiative begins

2023
DW RFP launch
VISIBILITY – CONTEXT – COLLABORATION

Improve visibility into our complex data environment so that we can better manage our data and answer our own questions with greater confidence.
The 80/20 Rule of Data Analysis

Time to insights: A measure of how quickly raw data can be turned into actionable business insights.

Data analysts can spend up to 80% of their time as hunter-gatherers, stumbling around the forest foraging for data, trying to divine its context, and preparing the data for use.

Only 20% of their time is required to perform the analysis or generate insights.

Time to insights can be used as a performance indicator to help evolve a more sophisticated data management plan and measure Return on Investment (ROI).
Integrations
- Unify Systems
- Unify Data Mgmt.
- Security Control
- Access Efficiency

Movement & Transformation
- Pipeline Mgmt.
- Data Lineage
- Golden Data Set
- Process Efficiency

Policy
- Proactive Mgmt.
- Time Savings
- Build Trust
- Gain Insights

Project Scope

Data Lake (mesh/fabric)
- OIT + DW
- Nice to Have

Warehouse & ETL Tool
- DW + IR
- Must Have

Data Catalog
- IR + Power Users
- Must Have

Governance Platform
- Entire University
- Nice to Have

Integrations
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Data Quality Improvement
- Visibility
- Observability
- Data Definitions
- Reduce Shadows

People
- Data Lake (mesh/fabric)
- Warehouse & ETL Tool
- Data Catalog
- Governance Platform

Scope
- OIT + DW
- DW + IR
- IR + Power Users
- Entire University

Lifts
- DW RFP
- Nice to Have
- Must Have
- Policy

Process
- OIT + DW
- DW + IR
- IR + Power Users
- Entire University

Intelligence, Visualizations, Publications
- OIT + DW
- DW + IR
- IR + Power Users
- Entire University
What is the Data Warehouse & Data Catalog RFP Seeking?

**Key Benefits**

- Improved data pipeline management
- Traceability & impact analysis
- Measure & manage data quality
- Process efficiencies, do more with less
- Increase visibility into our data assets
- Reduce “time to insights” ratio
- Reduce redundancies and shadows
- Increase the trustworthiness of our data

**Updated tools to replace the current system**

- A data Extraction, Transformation, and Loading (ETL) tool to help bring data from various sources into one location.
- A Data Warehouse management tool to ensure robust security, access, process automations, and enhance data quality.
- A Data Catalog to capture both shared and unique data definitions and the various critical reporting metrics across UA.

*Increase the trustworthiness of our data!*

*Empower quicker, smarter, data-driven decisions!*

*Cultivate our single source of truth!*
Everyone should be able to understand our data with all its context.

Agility
Discover Data
Everyone should be able to discover the data they need with ease.

Knowledge
Understand Data
Everyone should be able to understand our data with all its context.

Confidence
Trust Our Data
Everyone should be able to trust that the data is right for their use-case.

Goals:
1. Implement modernized tools for ETL & data warehouse management.
2. Develop a data catalog of Data Warehouse contents (and grow).

Collaboration
Drive Value from Data
Everyone should be able to access the data they need with the tools most comfortable to them.

To better manage our data as we would any other high value asset.
We are inviting data professionals across the University to preview these tools.

<table>
<thead>
<tr>
<th>How you can help</th>
<th>How these tools could help you</th>
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</thead>
<tbody>
<tr>
<td>• Review vendor proposals and/or attend data catalog demos.</td>
<td>• Access to self-service reporting tools, customizable to distinctive data needs.</td>
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<tr>
<td>• Share your feedback as a group or an individual, just a short summary of impressions.</td>
<td>• Tools to better find the data you need and understand its context.</td>
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<td>• After implementation, use the new data catalog with an eye for potential expanded uses in your area.</td>
<td>• A data catalog that could provide cohesive integration of the disparate data sources in your area.</td>
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Be a data hero for your UA campus!