TOPICS

• How did we get here?
• What are we doing?
• What does this mean for users?
• For more information...
HOW DID WE GET HERE?
A SELECTED TIMELINE

IN THE WORLD...

1997
- Oracle 8 Released
- UMD Data Warehouse

2002
- Oracle 10g Released
- Tableau Founded

2007
- Oracle Purchases Hyperion
- Last “DIB” Published

2012
- Amazon Redshift Released
- Current WH Expands to 7 Yrs

2017
- Cold Fusion 9 Released
- Profiles “Drill Down” Expands

AT UMD...

- UMD Profiles Goes Live
- UMD Practices for Data Sharing
TAKING INVENTORY

Oracle Tables for System Integration

Transaction Systems

Generally Nightly

Census Dates

KFS Data Warehouse
Managed by Admin. Affairs

Data Store
Managed by DivIT

Current Warehouse
Managed by DivIT

Frozen Warehouse
Managed by DivIT & IRPA

Data Documentation via “Gunpowder” Site
Uneven coverage across tables & fields
Inconsistent updates
WHY MODERNIZE?

• Software Out of Support: Manufacturer no longer provides patches or technical support

• Software Incompatible: Software is incompatible with new versions of operating systems or browsers

  Risks: Data Security, System Stability, User Frustration

• Software Is No Longer Performant: Product does not provide experience users expect – response time, features, etc.

• Design is Outdated: Warehouse was designed using outdated standards

  Risks: User Frustration
## Decision Support Systems at Maryland

<table>
<thead>
<tr>
<th>System</th>
<th>Issue</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiles</td>
<td>Out of Support, Performant</td>
<td>High</td>
</tr>
<tr>
<td>WOW</td>
<td>Incompatible, Out of Support</td>
<td>High</td>
</tr>
<tr>
<td>Desktop Hyperion</td>
<td>Support ends 2018?</td>
<td>Medium</td>
</tr>
<tr>
<td>Warehouse</td>
<td>Performant, Outdated</td>
<td>Medium</td>
</tr>
</tbody>
</table>
DATA CHALLENGES AT UMD

Inconsistent definitions

Gaps in data availability

Inconsistent reporting

Processing data is brittle and slow

Inconsistent application of data policy

Limited unit-record and reporting flexibility
WHAT ARE WE DOING?
<table>
<thead>
<tr>
<th>Workstream</th>
<th>Executive Reporting</th>
<th>Data Extraction + Ad Hocs</th>
<th>Data Modernization</th>
<th>Data Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Any user on campus should be able to access predigested information with context to aid in their understanding</td>
<td>Power users on campus generate reports to do their day-to-day work and need the ability to run ad hoc queries</td>
<td>AWS DW transformation</td>
<td>Ensuring all data are documented in DataDocs prior to moving to the new DW</td>
</tr>
<tr>
<td>Legacy Systems</td>
<td>Profiles, Frozen Warehouse, WOW</td>
<td>Current Warehouse, WOW, Advise on the Web, Hyperion Studio</td>
<td>Oracle, Mainframe</td>
<td>DAD site, Oracle Tables</td>
</tr>
<tr>
<td>Risk Mitigation</td>
<td>Profiles Replacement WOW - Partial Replacement</td>
<td>WOW Replacement</td>
<td>Informatica implementation</td>
<td>Field level definitions - DAD Replacement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SIS Replication / Data Store</td>
<td>Report Documentation</td>
</tr>
<tr>
<td>Enhancements</td>
<td>New Executive Reports</td>
<td>Hyperion/Studio Replacement</td>
<td>Warehouse redesign</td>
<td>Table Documentation</td>
</tr>
<tr>
<td></td>
<td>New Content Areas</td>
<td>Advise on the Web, Hyperion Studio</td>
<td>New data sources</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Implementation of &quot;Data are Free&quot; Policy</td>
<td></td>
</tr>
<tr>
<td>Solution Space Systems</td>
<td>Tableau, AWS</td>
<td>SQL, Tableau, Jasper, SAS, ...?</td>
<td>Amazon Redshift</td>
<td>Data Docs</td>
</tr>
</tbody>
</table>
A SHIFT IN PHILOSOPHY

Individuals Approved

Data Sets / Elements Approved

Registration Data Set
FOUR TYPES OF ACCESS

• **Public:** aggregate, summary, basic data

• **Campus-wide:** aggregate, summary, decision support

• **Protected-use:** de-identified individual records for research or legitimate business use

• **Full-use:** individual records identified for use in research, legitimate business use, and applications
WHAT DOES THIS MEAN?
CHANGES FOR USERS

Finding data
• New location, hopefully consolidated and easier to find
• New look and feel, hopefully more intuitive

Generating data
• New tools, hopefully with more stability and features
• Some pain in learning, hopefully with community support

Documenting data
• New tools, hopefully with collaboration and support
• New responsibility, hopefully with payoff
HOW CAN YOU PREPARE

Identify:
- Questions / decisions
- Data sets that answer these

Start learning:
- Install Desktop Tableau
- Explore resources

Prep your data:
- Data documentation
- Data cleanup
FOR MORE INFORMATION

Email: reportsupport@umd.edu

Project website: https://irpa.umd.edu/dsupdates.html

www.reports.umd.edu