Data Is Integral To Our Culture
In the news
On the streets
Progress Update

Recommendation #3 of ITSM Top 5 Service Recommendations from February 2013

Enterprise Data & Analytics
Recommendation #3 summary

Expand the Enterprise Data Warehouse (EDW) by creating additional reports; including additional data elements; and providing a credible, consistent, and reliable data environment to allow users flexible methods to access information, with an emphasis on “self-service” and ad-hoc analytics.
Progress on expanding the Enterprise Data Warehouse via

- self-service and ease of use
- more reports and ad-hoc analytics
- data consolidation and mash-ups
- more data faster
- credible, consistent, and reliable data environment
- services, roadmap and what’s next
“self-service & ease of use”

Innovation

Helping users make better decisions faster
Business Intelligence Portal

Intuitive
Flexible
Informative
Socialized
Customized

BI Portal: [http://biportal.uw.edu](http://biportal.uw.edu)

Online demo: [http://decisionsupport.washington.edu/BIPortalTour.html](http://decisionsupport.washington.edu/BIPortalTour.html)
Innovation

Lowering the barrier to entry for self service analytics

Tableau Data Visualization Implementation

- UW purchased 175 Tableau Desktop licenses
  Nearly 150 people now using Tableau Desktop to develop visualizations
- Rolled out Tableau Server initially in support of UW Profiles
  Campus-wide Tableau rollout from Nov 2013 through March 2014

Major Achievements
- Tableau Desktop training for all faculty and staff
- Tableau User Group
- Several outreach road show events
- Setting up Single-Sign-On using SAML 2.0
- Automating server management
- Number of publications on/off campus
Innovation
New methods to gain insight from the data we collect

Data Science - Notify Analytics

• Course demand and “Needed Spaces” helps plan for courses
• Shown to Deans, Chairs, UW-IT Town Hall, and UW Regents
• Released in August 2014
• A great example of cross-team collaboration (ACA and EDA)
• Leap Forward Day innovation
Impact

The fruits of our efforts

“more reports & ad-hoc analytics”
## By the numbers

<table>
<thead>
<tr>
<th>Enterprise Data Warehouse</th>
<th>Enterprise Business Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 billion records</td>
<td>280 SSRS reports</td>
</tr>
<tr>
<td></td>
<td>14 thousand runs/month</td>
</tr>
<tr>
<td>36 thousand columns</td>
<td>7 SSAS cubes</td>
</tr>
<tr>
<td></td>
<td>20 thousand runs/month</td>
</tr>
<tr>
<td>1.7 thousand tables</td>
<td>26 Tableau dashboards</td>
</tr>
<tr>
<td></td>
<td>800 runs/month</td>
</tr>
<tr>
<td>36 databases</td>
<td>6,300 users</td>
</tr>
<tr>
<td></td>
<td>1.1 million direct queries/month</td>
</tr>
</tbody>
</table>
Impact
Growth in report utilization

Reporting

• Steady usage growth continues

• Top Users
  • School of Medicine
  • Finance and Facilities
  • College of Arts & Sciences
  • College of Engineering

• Financial Reports most popular
Impact
Explorative analytics and power tools

Release of Financial Cube 2013
*with Account Groupings and State Codes*
- Higher usage as compared to previous year/same quarter:
  ~250% more traffic from F2
- Positioned us well for state audit

Research Awards Cube
- Usage up by 22% in 2014, but it is on the decline (quarter-over-quarter)
- Addition of Proposals data coming soon
Impact
Explorative analytics and power tools

UW Profiles
• Released in Fall 2013
• 1100 Users have access to Profiles
• Viewed by 40+ people daily
• Highest usage by IR in Seattle, Tacoma, Bothell

Course Demand
• Released August 2014
• Daily visibility into unmet course demand
# Tableau for students, teaching, faculty & staff

- **Tableau for Students**
  Free to full time students
  [http://www.tableausoftware.com/academic/teaching](http://www.tableausoftware.com/academic/teaching)

- **Tableau for Teaching**
  Free to faculty teaching with Tableau
  [http://www.tableausoftware.com/academic/teaching](http://www.tableausoftware.com/academic/teaching)

- **Tableau for Faculty & Staff**
  A fee to create, free to interact
  [http://decisionsupport.washington.edu/tableau.html](http://decisionsupport.washington.edu/tableau.html)

<table>
<thead>
<tr>
<th>Tableau for Students</th>
<th>Tableau for Teaching</th>
<th>Tableau for Faculty &amp; Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downloads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,720</td>
<td>1,915</td>
<td>135</td>
</tr>
<tr>
<td>UW is #1 worldwide in higher education downloads</td>
<td>students using in classes</td>
<td>500</td>
</tr>
<tr>
<td>61 instructors teaching</td>
<td></td>
<td>Tableau Server users</td>
</tr>
</tbody>
</table>
“combine local with central data”

Data Consolidation
Filling gaps and supporting mashups
Data Consolidation

• Tableau supports **mashups**
  
  Users can merge departmental data with central data

  Data Management Committee supports publishing mashups on the Tableau Server

• **EDDIE tools** incorporates **non-source system** master data
  
  e.g. Crosswalk between Academic and Financial organization
Analytics for all, using local & central data

Visualizations use EDW data, local data, or both

Share and collaborate

Access controlled by owner

Web-based, mobile-friendly
“additional data faster”
Expanding EDW

Student Application History
- “... expanded access to appl_histroy to more analysts via EDW improved job efficiency and accelerated reporting delivery”
  - Tieming Lin, Director, Market Research/Director, Outreach Reporting Services

CIP to STEM
- “We can now track our production of graduates against state and federal benchmarks and commitments, are better positioned to receive funding for STEM programs, and can better serve students whose visas are affected by their enrollment in STEM programs”
  - Office of Planning & Budgeting

State Conversion Attributes
- “THANK YOU to everyone who worked so hard on this project and partnered with us to add some desperately needed functionality to the cube. Really outstanding work done by all!”
  - Dan Schaaf, Director of Financial Accounting
Rapid Delivery

Weeks spent on EDW data build out projects

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
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</thead>
<tbody>
<tr>
<td>Research Awards</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>Student Credit Hours</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Financial Account</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Groupings</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Student Application</td>
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<td>History</td>
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<td>CIP to STEM</td>
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<td>State Conversion</td>
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<tr>
<td>Attributes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Focused scope allowed delivery with FY14 priorities, including:

- Business Intelligence Visualizations
- EDW Technology Renewal
- HR/P Modernization
“credible, consistent, reliable data environment”
EDW Technology Renewal

**Results**

- Completed in Aug 2014
- Smooth transition for EDW customers
- New hardware & software
- Faster BI and queries
- Ready for future projects (HRP/Finance)

**Scale and Impact**

- 5000 People with EDW Access
- 700 power users
- 15 servers
- 40 databases
- 2000 tables (5 billion records)
Roadmap & What’s Next

Strategic Direction
Enterprise Data & Analytics Vision

**WHY**
- Advancing the Data-Driven Decision Making Culture
- Satisfied and empowered data users

**WHAT**
- Easy Integration
- Fast & Easy Delivery

**HOW**
- Prioritize Analytics
- Manage Risks & Security
- Innovate
What’s Next

- Data Marts
- Integration
- ETL Tools
- Metadata Solution
- Data Mashups
- Risk Mitigation
# Describing Our Services

## Service Catalog Approach

<table>
<thead>
<tr>
<th>Service Offering</th>
<th>Services Offered</th>
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</thead>
<tbody>
<tr>
<td>Enterprise Data Warehouse &amp; Analytics</td>
<td>Enterprise Data Warehouse</td>
</tr>
<tr>
<td></td>
<td>Reports/Cubes/Visualizations</td>
</tr>
<tr>
<td></td>
<td>Tableau Licensing</td>
</tr>
<tr>
<td></td>
<td>Education &amp; Training</td>
</tr>
</tbody>
</table>

## Capabilities Approach

*“Information for Decision Making”*

<table>
<thead>
<tr>
<th>Category</th>
<th>Capability</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Systems</td>
<td>Access and find enterprise data &amp; analytics</td>
<td>Business Intelligence Portal, UW Profiles Portal, Website</td>
</tr>
<tr>
<td></td>
<td>Explore and analyze enterprise data</td>
<td>Reports, cubes, visualizations, Tableau license and user management</td>
</tr>
<tr>
<td></td>
<td>Understand enterprise data</td>
<td>Training and education, metadata repository</td>
</tr>
<tr>
<td></td>
<td>Produce enterprise data</td>
<td>Master data, metadata</td>
</tr>
<tr>
<td>IT Management</td>
<td>Consulting</td>
<td>Information design, analysis and architecture, security &amp; data access, extract, transform, and load data</td>
</tr>
</tbody>
</table>
Appendix
Administrative Policy Statements

University Organization Chart

(Approved by the President by authority of the Board of Regents Governance, Standing Orders, Chapter 1)

This chart reflects the reporting relationships within the University of Washington. Select any box on this chart to link to more detailed information in APS 1.2, University Wide Leadership List.