BI/Reporting Assessment
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Agenda

- Review BI Project
- Background & shared query assessment
  - Current state – factors/risks
  - Current path
  - Recommended strategic path
- Next steps
  - Huron Engagement
  - CSRG New Initiative Funding Request for FY17, FY 18

Background Review BI Project

- **CSRG Funding Supports**
  - Interactive Reporting base
  - BI – OBIEE implementation – Prior Year Initiative
  - BI – Implementation and Training on Student Data Related Reporting Initiative
- **Project Goals BI – OBIEE Implementation**
  - Purchase hardware for OBIEE 12c (includes maintenance)
  - Install, configure, set up security and authentication for 15 UW System institutions
  - Migrate Platteville OBIEE 11g instance into System OBIEE 12c instance
  - Assessment of system-wide shared queries
  - Create a dimensional model for the data used by the Shared Queries
  - Using the dimensional data models, create a metadata repository (semantic layer) for Shared Queries
  - Create dashboards/reports using semantic layer that replace Shared Queries in Interactive Reporting
  - Train two technical staff from each campus
  - Monitor readiness of campuses with student data related queries to move to OBIEE
- **Project Goals Student Data Initiative**
  - Engage consultants to conduct dimensional data modeling and develop semantic layer templates for 13 institutions in order for them to convert their campus specific content

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Background and Shared Query Assessment

Summary

- Assessment Spring 2016: Current data warehouse and reporting platforms and options for positioning these platforms for Oracle Business Intelligence (OBIEE).
  - HRS & PeopleSoft Enterprise Performance Management (EPM)
  - SFS/WISDM/WISER
  - Hyperion Interactive Reporting

- Output: Recommendations on short and long-term strategic roadmap for maintaining an enterprise reporting, business intelligence and data warehousing solution.

Factors / Risks - HRS/EPM Reporting

- EPM (the HRS data warehouse) is NOT dimensionally modelled and must be replaced or restructured.
- Current tool to extract data from HRS and place in EPM is no longer supported.
- Other pain points:
  - Strong reliance on power users
  - No proactive efforts in reports design and development

Factors/Risks: WISDM/WISER

- Current system is stable, but dependent on custom built code with multiple legacy technologies.
- WISDM is not real-time and does not represent transactions from the current day of operation.
- It could be difficult to maintain based on the custom technologies in development, ETL and platform.
- Current data integration (HRS, Campus Solutions) is limited.
- Limited developer resources - resources turnover is risk.
- Current project ongoing to update to current technology (WISER) and to bring in additional data (expense, projects etc.).

Current path for transitioning Shared Queries to meet June 2017 timeline

- Build the OBIEE data source based on current EPM and Wisdm/Wiser data structures

- Develop reports to replace the IR shared queries.

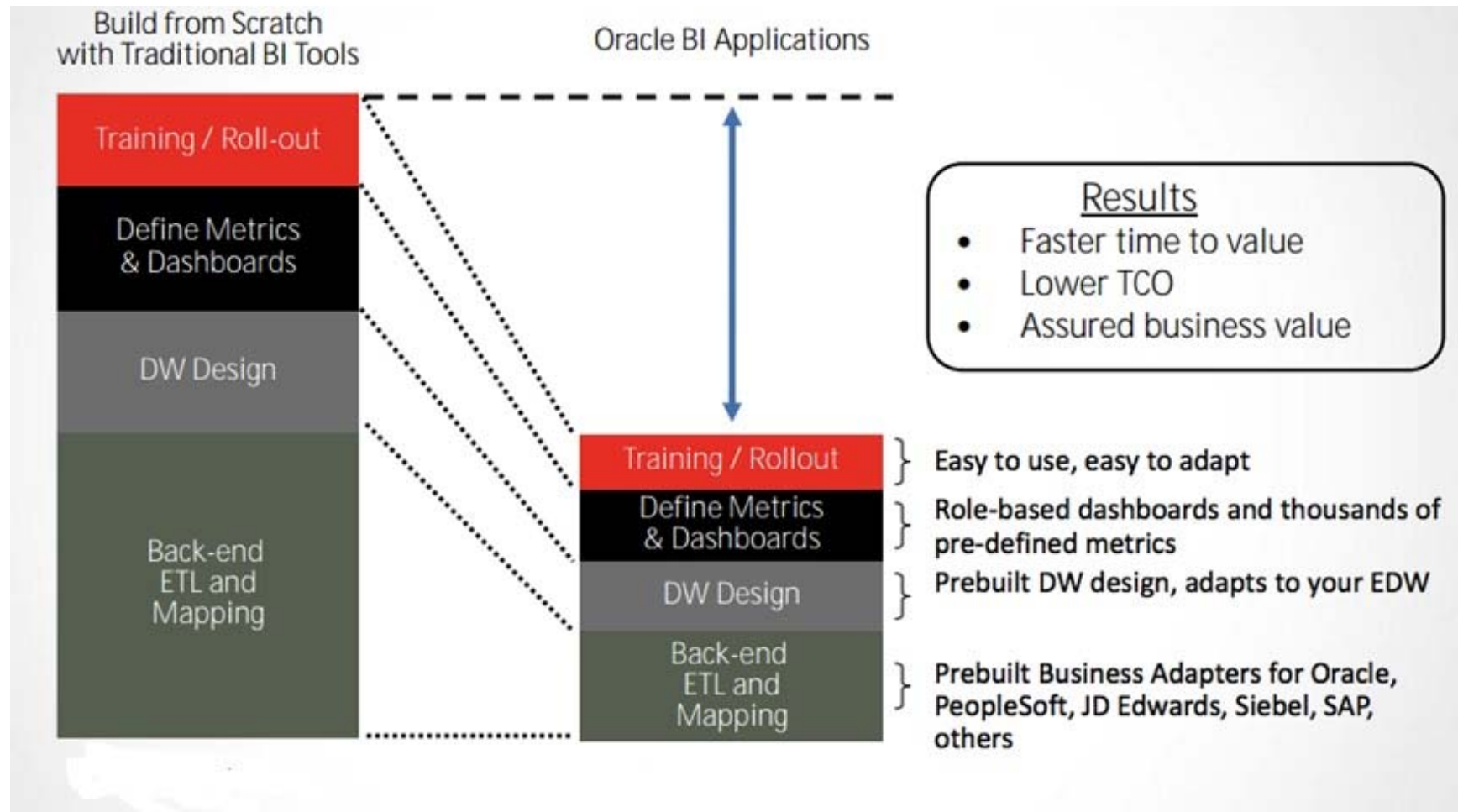- Estimated effort to convert 105 shared queries: ~5600 hours

Implications of current path

- Resource availability, cost and schedule.
- Accomplishes initial transition, but not optimal for supporting OBIEE ongoing.
- Eventually need to build new data structures (particularly for HRS) to support analytical and predictive features of the new OBIEE tool.
- Does not address the HRS/EPM data warehouse situation.

Recommended strategic approach

- Evaluate an additional Oracle tool (Oracle Business Intelligence Applications)
  - Enables transition of IR shared queries
  - Solution for replacing EPM
  - Delivers pre-built analytics and dashboards
  - Foundational for enhanced BI analytics/predictive analytics

- Integrate OBIA Analytics – starting with HR Analytics.

Recommended strategic approach:

Source - Oracle Corporation

Recommended strategic approach

- Build a plan for common enterprise data warehouse across business functions (HCM, FIN, and potentially Campus Solutions).

- Define data governance and strategy across UW reporting and business intelligence landscape.

Next steps for Shared Queries:

- Work with Huron to:
  - Analyze feasibility of OBIA for HRS and SFS as approach for transitioning the Shared Queries or other approaches for transitioning the Shared Queries.
  - Determine realistic resource plan, timeline and budget for the Shared Query transition.

Next steps for BI Project:

- Huron Engagement (discovery & analysis)
- CSRG New Initiative Funding Request for FY17, FY 18

Engaged Huron Consulting
Initial 8 week engagement in 3 areas

Scope of Work – Infrastructure Setup

ARCHITECTURE DETAILS

- Review and recommend architecture details for Development, Test (QA), and Production environments.

AUTHENTICATION- AUTHORIZATION

- Review and recommend the approach to configure OBIEE Authentication using the Wisconsin Federation of campus-specific SAML2 IDPs
- Review and Recommend the approach for OBIEE authorization

RPD CHANGE/ CONFIGURATION MANAGEMENT

- Recommend and assist to implement RPD change and configuration management processes compatible with architecture, authentication and authorization implemented

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Scope of Work – Shared Queries

FIT/GAP ANALYSIS

- Conduct a fit gap analysis for OBIA HCM Analytics that includes
  - Compare the existing BQY reports against the out of the box OBIA HCM Analytics reports
  - Review customizations made in the EPM and PSFT HCM environments
- Develop a fit/gap results document that shows level of fit and customizations needed to meet all reporting requirements
- Develop options (including order of magnitude level of effort) for the future state data architecture for the Shared queries including:
  - Use of OBIA if the fit/gap shows a positive fit
  - Alternative approach if not a fit
  - Approach for InfoAccess, SFS and WISDM data sources.
- Conduct option review sessions and facilitate the decision making process

IMPLEMENTATION PLAN

- Develop an implementation plan for the design, build, test, and deploy phases of the project based on the option selected above. This plan will include:
  - Application work stream – To include the build of the system components (whether OBIA or another data model, technical design and build of the reports, testing, and deployment activities
  - Change Management work stream – As part of this effort a high-level training strategy will be developed for the shared queries and included as part of this plan. It will also include a plan and strategy for handling ad-hoc reporting.

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Scope of Work – Student Pilot

DATA SOURCE ANALYSIS

- Analyze the current student reporting data models and determine if a conversion to a dimensional model (i.e. a data warehouse) will be needed.
  - <u>Platteville</u> – utilizes a dimensional model via EPM.   This model will be reviewed and evaluated for performance as a benchmark with which to compare against.
  - <u>Stout, Eau Claire, Milwaukee </u>– Use an RDS which is partially dimensionally structured. This task will evaluate the current structure of the RDS and assess the ability to utilize the RDS to model efficiently in OBIEE.
  - <u>Whitewater, Green Bay </u>– Retrieve data for reporting directly from the PSFT CS tables or a copy of the tables. This task will evaluate how to meet the requirements and ways to dimensionally model the data.

DEVELOPMENT

- Develop a recommendation on whether a common student data model can be leveraged .
- Develop the high level logical model for student data based on above results (dimensions and facts)
- Develop a template implementation plan for the three types of conversions
  - Campuses already using a dimensional model
  - Campuses using a partial dimension model (RDS)
  - Campuses not using a dimensional model

PILOT CAMPUS ENABLEMENT

- Working with the campuses, complete the remaining Initiate/Analyze tasks
- Using the template implementation plan, work with the pilot campuses to build their implementation plans and establish the next phase of work for each

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Next steps for BI Project:

- CSRG New Initiative Funding Request for FY17, FY 18:
  - The Discovery/analysis will inform resource plan, timeline and budget for the overall BI project