



Research and
Institutional Effectiveness

Texas State Reporting: A Blueprint for Migration from one System to Another

Robert Ricks

Director Enterprise Reporting Systems

Melissa McLeod

Senior State Reporting Analyst



Outline

- Introduction, Caveat, and Objectives
- The Blueprint
- Steps to Completion
- Summary and Conclusions
- Questions



About Lone Star College

- Northwest Houston
- 6 main campuses + System Office
- 6 centers
- Meteoric growth 2008-2012
- @90k students and still growing



Our Journey

- Began migration project in 2009
- Went live for Spring 2011 semester
 - Business processes still fluid
 - Systemic failures in major business areas
 - State Reporting still under development
 - Business intelligence failure
- TSR/CBM Project “Complete” Spring 2013



The Caveat

- Every college is different
 - Corporate cultures
 - Organizational structures
 - Technologies
 - Personnel
 - Fiscal resources



Objectives

- Share lessons learned
- Open discussion
- Invite further discussion and collaboration



The Blueprint

- Successful report migration projects depend on:
 - Timing
 - Asking the right questions
 - Establishing operational authority
 - Determining steps to be taken to ensure completion
 - Developing a maintenance plan



Timing

- Business view:
 - Due to statute and rule changes, TSR is a moving target
 - CBM reporting relies heavily on business processes, which must be defined

Timing

- Factors that drive bad timing decisions:
 - The reporting calendar doesn't stop
 - The old system will no longer hold current data
 - There's money tied to state reports
 - Manual production of state reports is labor intensive and error prone



Timing (People)

- Business View:
 - Involving the right people early will save a lot of grief later



Timing (People)

- People
 - Identify key decision-makers from among the operational and technical team members
 - Create collaboration between TSR team and key decision-makers early
 - Use an internal resource for TSR development
 - Retain a dedicated resource for TSR maintenance



Timing (Process)

- Business view:
 - Understanding how the data are input goes a long way toward getting the right data out of the system
 - Setting a reasonable delivery timeline avoids costly mistakes



Timing (Process)

- Process
 - Identify
 - First reporting period for new system
 - Target reporting period for report project completion
 - Develop a good understanding of
 - New operational business processes
 - Current state reporting requirements and definitions



Timing (Technology)

- Business view
 - Using the right tools at the right time is more efficient than using the wrong tools at any time
 - Practice makes perfect



Timing (Technology)

- Technology
 - Learn where and how data will be stored in new system
 - Build ad hoc while new ERP is being developed
 - Use lessons from ad hoc to develop automation



The Right Questions

- Business view:
 - The right answer to the wrong question is no better than the wrong answer to the right question
 - The goal is to meet THE CB requirements, not to match previous processes



The Right Questions

- Questions
 - How did we do it in System A? vs
What data do the reports need? How are these data stored in System B?
 - How do we build Report A? vs
 - How are the reports related? How can we leverage report relationships?



Operational Authority

- Implementation view:
 - What is the best approach for implementation?
- Project Manager
 - What information is needed to specify the reports?
 - When will the reports be finished?
 - What resources to apply to development?
 - How will the product be documented?
 - How will the product be maintained?



Operational Authority

- Implementation view:
 - What is the best approach for implementation?
- Developers
 - How data will be extracted?
 - How to construct the interface?



Operational Authority

- Business View:
 - Who is responsible for the outcomes?
- State Reporter(s)
 - What needs to be reported?
 - How will reporters interface with reports?
 - What is the consequence of failure?



Operational Authority

- Business View:
 - Who is responsible for the outcomes?
- Business Process Owners
 - How are data put into the system?
 - What is the impact of any business process change?



Steps to Completion

- Specify
- Develop Prototype(s)
- Test
- Refine
- Implement
- Maintain



Specify

- Use THE CB
 - Reporting Manual specifications
 - Personnel (email, phone)
- Identify shared data characteristics
 - Credit vs CE
 - Beginning vs End of Term
 - Term/Quarter vs Annual



Specify

- Identify temporal relationships
- Identify shared definitions
- Plan for operations and maintenance



Develop Prototypes

- Start with the basic reporting period populations
- Use prototypes to refine specifications
- Communicate with operational business areas
- Have TSR team work closely with developers



Test

- Column testing (i.e., all values are valid)
- Row testing
 - Record makes logical sense
 - Record represents source data correctly



Test

- Cross-report testing
 - Contemporary reports balance
 - Related prior-term report relationships
- Use THE CB servers

Refine

- Identify manual processes that can be automated/further automated
- Based on prototypes, identify what the user must tell the system to get the correct results
- Identify “moving parts” (e.g., configurable elements)
- Design/refine user interface—keep it simple



Refine

- Ensure report corrections can be made
- Define archiving process for certified reports
- Document



Implement

- People
 - Develop partnerships with operational stakeholders
 - Communicate reporting needs and impacts
- Processes
 - Set hard deadlines
 - Proactively report source system data integrity issues
- System
 - Move to production
 - Monitor and improve efficiency



Maintain

- Plan for change
- Make an IT Priority
- Monitor configuration for changes
- Study new CB reporting manuals
- Attend TACRAO and appropriate CB meetings
- Watch for new legislation/legislative trends



Summary

- TSR migration/automation is a team effort
- The right timing, asking the right questions, and establishing operational authority are critical to success



Conclusion

- A systematic migration approach won't ensure painless success; however a haphazard approach will ensure failure(s) and frustration
- Planning and prototypes are tools to reduce cost and improve quality of automation



Conclusion

- Migration is just the start of the journey
- Planning for operations and maintenance during specification and development is an important key to success



Research and
Institutional Effectiveness

Questions



Contact Information

- Robert Ricks
Robert.A.Ricks@lonestar.edu
- Melissa McLeod
Melissa.J.McLeod@lonestar.edu