Bringing MAGIC to Mississippi

SASHTO Briefing

August 25, 2014
A Word of Warning

Please bare with me today if I seem scattered, overwhelmed, or just plain...

MAGIC Phase I (Finance, Procurement, and Grants) just went live on July 1st...

And we are still trying to figure out what hit us
Topics

• ERP: State’s Needs and MDOT’s Needs
• MAGIC Project and MDOT’s Interface Project
• Issues and Lessons Learned
• MDOT and MAGIC: What’s Next?
1989 – State’s Accounting System Implemented (SAAS)

2005 – Katrina; emergency projects and additional tracking/reporting requirements

2006 – The state began the planning and design phase to evaluate alternatives and ultimately decided to pursue an ERP system

2008 – Mississippi’s Transparency and Accountability Law

2009 – ARRA; additional grant management and reporting requirements

2009 – The state issued an RFP to select the ERP Software provider (SAP).

2010 – The state issued an RFP to select the Implementation Services vendor (SAP Public Services)

2011 – MAGIC Project Kickoff

July 1, 2014 – MAGIC Phase I Go-live (Finance, Procurement, Grants)

January 1, 2015 – MAGIC Phase II Go-live (HR, Payroll, Travel, and Training)
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Why MAGIC – Setting the Stage

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Why MAGIC - Statewide Needs

**Scope**
- 9,000+ functional requirements
- Over 40 major processes
- Over 100 agencies/governmental units
- 35,000 eventual system users

**Purpose**

MAGIC is Mississippi’s pursuit of an Enterprise Resource Planning (ERP) solution that is managed by DFA and replaces the State’s current central administrative systems: SAAS (1989), SPAHRS (1997), WebProcure, MERLIN, I2K, MELMS, Protégé, PATS, and ACE which are either at the end or are approaching the end of their lifecycles.

**Costs**
- State: $100m+
- MDOT: $2m+
- Ongoing Costs - Anticipate increased DFA agency billing beginning in FY2015

**MAGIC Team**
- Finance and Administration (DFA)
- Information Technology Services (ITS)
- State Personnel Board (SPB)
- STA Consulting
- SAP Public Services

**MAGIC Goals**
- Standardize state procurement functions
- Improve reporting capabilities
- Standardize business processes across State government
- Reduce errors with automation of processes
- Streamline processes to reduce transaction time
- Consolidate redundant systems to lower costs
- Utilize electronic workflow and decrease paper usage
System Architecture (Post-MAGIC)

E-Gov Portal

VitalChek
2001

MAGIC

PayMode®
Payments – 2002
Invoicing – 2007

BRICKS
2010

Banking System
Why not MAGIC - MDOT’s Needs

**MDOT’s Key Concerns**

Federal Billing: This is MDOT’s most critical function in FMS as it drives our daily cash balances.

Application Support: MDOT maintains an IT staff that supports all daily operations of FMS and functional staff.

Data Integrity and Security: FMS data is clean; field-level security capability; minimal use of free-form fields; many edits in place.

Loss of automation and functionality: FMS has many DOT-specific features that we do not want to lose.

Return on Investment: Many things being sought by the state in a new system already exist in FMS. Time and money it would take to customize a system for DOT needs not cost effective.

Level of Accounting Detailed Captured

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**MDOT Business System Model**

- MDOT implemented FMS in 1998. We use a continuous improvement model with ongoing vendor support and maintenance to keep FMS a current system.
- Since then, MDOT has implemented 6 other core business systems integrated with FMS (preconstruction, construction management, equipment management, maintenance management, program management, and enterprise content management)
- Focus now on business intelligence systems; integration provides data mining opportunities

**MDOT’s Financial Management System (FMS)**

- FMS is the center piece of all MDOT business. It is a comprehensive tool for processing MDOT’s financial transactions and assets. FMS also tracks geospatial project information.
- Of 3,200 employees, 788 are FMS Users
- Approximately 45 purchasing departments
- 15 Inventory Warehouses
- 12 Imprest Accounts
<table>
<thead>
<tr>
<th>MAGIC</th>
<th>SAAS</th>
<th>FMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Area</td>
<td>• Appropriation Unit, Program</td>
<td>Department, Budgetary Program</td>
</tr>
<tr>
<td>Fund</td>
<td>• Fund (split and numbered by source)</td>
<td>Fund, Sub-fund</td>
</tr>
<tr>
<td>Fund Center</td>
<td>• Org Code, Office, Division</td>
<td>Organization/Division</td>
</tr>
<tr>
<td>Commitment Item</td>
<td>• Object Codes (Major, Minor)</td>
<td>Object Level 1,2,3,4</td>
</tr>
<tr>
<td>Funded Program</td>
<td>• Grant Budget</td>
<td>Grant No/Det/Billable Bdgt</td>
</tr>
<tr>
<td>Funds Pre-Commitment</td>
<td>• New Process (no SAAS equivalent)</td>
<td>No FMS Equivalent</td>
</tr>
<tr>
<td>Funds Reservation</td>
<td>• New Process (no SAAS equivalent)</td>
<td>No FMS Equivalent</td>
</tr>
<tr>
<td>Shopping Cart</td>
<td>• Purchase Requisition – Pre-encumbrance</td>
<td>Purchase Requisition</td>
</tr>
<tr>
<td>Purchase Order</td>
<td>• Purchase Order – Firm Encumbrance</td>
<td>Purchase Order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Cost Acct</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Org Cost Acct</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project Cost Acct</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GIS Data</td>
</tr>
</tbody>
</table>

X - Where gaps currently exist in MAGIC (not an all-inclusive list)
MAGIC MOU

- MDOT has always maintained a financial system separate from the state’s financial system

- In 1994, MDOT received approval to implement a new financial system external to SAAS that provided the level of project and cost accounting detail required by MDOT (FMS)

- In March 2009, MDOT and DFA entered into an MOU that outlined MDOT’s interaction with MAGIC including:
  - Real-time interface
  - Full integration of Procurement not initiated in the MDOT construction management system
  - Continue to meet the statewide requirements for asset management, fleet reporting, contract reporting, grants management and grants accounting regardless of what system used
  - Follow same schedule as all other agencies for HR and Payroll

* This decision was changed during the project
MAGIC Governance Model

- Project Steering Committee
  - MMRS Steering Committee

- Executive Sponsorship
  - State Executive Sponsor

- Change Control Board (CCB)
  - Agency Readiness Manager (ARM)
    - Agency Personnel

- Project Management Office
  - State, SAP, STA Consulting

- State & SAP Project Team
  - Business Owner
  - Advisory Work Groups (AWGs)
  - Stakeholder Personnel

- Executive Sponsorship
  - SAP Executive Sponsor

- SAP Delivery Executive
- SAP Client Partner
MAGIC Project Overview

MAGIC Project Timeline

- July 2011 – MAGIC Project Kickoff
- January 2013 – Phase I go-live
- July 2013 – Phase I go-live
- August 2013 – Phase I go-live
- December 2013 – Phase I go-live
- July 2014 – Phase I go-live
- January 2014 – Phase II go-live

Implementation Approach

The State used the “Big Bang” approach

MAGIC Statistics

<table>
<thead>
<tr>
<th>Work Tasks / Work Products (Documentation)</th>
<th>Finance</th>
<th>Human Capital Management</th>
<th>Logistics</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshops Conducted</td>
<td>31</td>
<td>49</td>
<td>27</td>
<td>107</td>
</tr>
<tr>
<td>Master Data Descriptions</td>
<td>14</td>
<td>2</td>
<td>1</td>
<td>17</td>
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<tr>
<td>Organizational Data Descriptions</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Business Scenario Documents</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Business Process Documents</td>
<td>29</td>
<td>42</td>
<td>38</td>
<td>109</td>
</tr>
<tr>
<td>Key Decision Documents</td>
<td>8</td>
<td>18</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>In Scope Requirements</td>
<td>4,291</td>
<td>2,192</td>
<td>1,876</td>
<td>8,359</td>
</tr>
<tr>
<td>RICEFW</td>
<td>273</td>
<td>122</td>
<td>151</td>
<td>546</td>
</tr>
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</table>
MAGIC Timeline (Revised Go-live #2)

• Compressed Training Schedule
• UAT ran concurrently with training
• ITC 3 ran concurrently to both
# MDOT’s MAGIC Interfaces

## Interface Challenges

MDOT’s Interface project was a project within a project. Many activities and decisions were not within our control.

Keeping the Interface project plan synced with the State’s plan was very challenging.

Oversimplification of MDOT’s interfaces; state team thought this was a very simple project.

Misconception that because MDOT was interfacing certain transactions, MDOT would not be using MAGIC.

Communication and receiving timely information is an ongoing issue.

## Phase I Interfaces – Both Replacements and New

<table>
<thead>
<tr>
<th>MDOT Specific Interfaces</th>
<th>State Interfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Order</td>
<td>Financial Inbound Interface</td>
</tr>
<tr>
<td>Goods Receipt</td>
<td></td>
</tr>
<tr>
<td>Logistic Invoices</td>
<td></td>
</tr>
<tr>
<td>Asset/Equipment create</td>
<td></td>
</tr>
</tbody>
</table>

## Interface Activities

- Secured SAP technical resources
- State’s design documents and KDDs specific to MDOT’s interfaces
- Involvement in ITC (testing)
- Activities since go-live
- No more outbound interfaces
MAGIC Go-Live Issues

- State has changed its business processes but has not updated its written guidelines, so all state manuals are out of date; the system is driving the business
- Changes were made to system after UAT that impacted our interfaces
- Data not converted correctly or missing altogether
- Contracts and incorrect approval workflows
- Issues splitting operating fund into separate state and federal funds
- New grant management functionality
- MAGIC reports replacing outbound interfaces were not ready so FMS crosswalk tables could not be completed
MAGIC Lessons Learned (So Far)

• Integration between MAGIC modules increased the complexity of the interface design

• Direct payments against contracts had to be done on purchase orders due to SAP interfacing defect (impacted many MDOT business processes)

• Impact to paymode was not clearly understood until after go-live
### MOU and the Business Case

Per the MOU, MDOT and DFA will jointly undertake a business case after July 1, 2016 to determine if MDOT’s FMS system and other relevant systems (i.e., SiteManager, Project Management System) should be replaced by MAGIC.

### Key Factors to Consider

- Remaining lifecycle of FMS and other backend systems
- Federal billing and FHWA certification
- No loss of functionality or stability
- MAGIC Support Service Agreement (LOS requirements)
- Ability to continue to upgrade MDOT’s core systems
- Data integrity and security