

Project Plan



Project Manager: Sharon Harness	Department:	Date: 04/23/2010
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Project Name: Smart Grid - ADMS

Business Sponsor: Dave Wakeman/Ron Pate	IT Sponsor: Mary Heger
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Project Goal:

The Advanced Distribution Management System (ADMS) project will replace existing systems and applications **utilized in the operation of Ameren's electric distribution system. The ADMS will be a fully integrated suite of applications** that will provide distribution system operators with a common user interface to monitor, control, and manage the electric distribution system and smart devices throughout the distribution system.

Project Description/Requirements:

The major functional areas covered by the ADMS include: Outage Management, Network Model and Geographic/Schematic map displays, Engineering/Analytical applications, SCADA (Supervisor Control and Data Acquisition), Switching Management, Storm Management, Training Simulator, and Reporting.

The ADMS system is considered the foundational element in the implementation of Smart Grid enabling the safe, effective management operation of the distribution system and the control of the expanding base of smart devices deployed throughout the electric distribution system. **The Advanced Distribution Management System (ADMS) project will replace existing systems and applications utilized in the operation of Ameren's electric distribution system.** The ADMS will be a fully integrated suite of applications that will provide distribution system operators with a common user interface (integrated suite) to monitor, control, and manage the electric distribution system and smart devices throughout the distribution system. The project includes the purchase, integration, testing, and deployment of a vendor-based Advanced Distributed Management System for use in the Ameren electric distribution companies in Missouri and Illinois.

- Objectives (Business Case Targets):**
- Numerous Interfaces created between ADMS and existing Ameren Systems/Applications
 - Improvement in Reliability – Reduction in annual CAIDI index (measured 1 year after implementation).
 - Improvement in Reliability – Reduction in annual SAIFI index (measured 1 year after implementation).
 - Reduce complexity for the System Operator by reducing core applications from separate applications to an integrated application.
 - Improve ability of System Operator to manage Smart Grid Devices
 - Operate and Manage the Distribution system more efficiently, accurately, and safely

Stakeholders/Project Organization (RACI Chart)
Responsible – R, Approver - A, Contributor- C, and Informed - I

RACI Chart	Task				
	Plan	Design	Develop	Test	Implement
PAC	A	I	I	I	I
Study Team	R	--	--	--	--
Program Leads	C	A	A	A	A
Project Manager	C	C	I	C	C
Team Leads	I	R	C	R	C
Vendor	I	R	C	C	R
IT Analysts	I	C	R	C	R
Training Team	--	I	I	I	C
BL SME	I	I	I	R	C

PAC: Mary Heger, David Schepers, Ron Pate, David Wakeman, Stan Ogden, Bruce Fritz
Study Team: Rodger Koester, Neil New, Jeff Shultz, Jim Huss, Jon Albrecht, Brian Ripperda, Andy Sugg, Charlie



Schaeffer, Joe Ostendorf, Kurt Kain, Suraj Prashad, Sharon Harness

IT Program Lead/Manager: Charlie Schaeffer

Business Program Leads/Manager: David Allen, Arthur Curle

IT Project Manager: Sharon Harness

Business Team Leads: Rodger Koester, Jim Huss, Jon Albrecht, Brian Ripperda, Call Center Lead, Training/Org Impact person

Vendors: ABB, Obvient

Scope Statement

In Scope:

ADMS system will address these functional areas:

- Outage Management
- Network Model and Geographic/Schematic map displays
- Engineering/Analytical applications
- SCADA (Supervisor Control and Data Acquisition)
- Switching Management
- Storm Management
- Training Simulator
- Reporting

These applications will be removed/replaced/modified with this project:

- OAS (outage analysis functionality eliminated only; OAS retained for MDT purposes)
- SAWS (eliminated)
- Byers Map Viewer (eliminated for System Operators; Mobile users will still utilize Byers)
- DDOS SCADA (eliminated)
- ESOS SCADA (interfaced with ABB system)

Out of Scope:

- Gas Operations – OAS will continue to be utilized for Gas (Leaks, etc..)

Deliverables Produced:

- New software suite implemented
- Interfaces between ADMS and existing Ameren data/applications (to be listed separately)
 - o GIS – Maps and Distribution System Model
 - o SCADA – Substation communications directed to new ABB SCADA
 - o CSS – Customer information interfaced
 - o DOJM – Permanent repairs from ABB Outage directed to DOJM
 - o OAS – Enhanced to accept ABB outage orders
 - o VRUs – internal and external interfaces to ABB Outage
 - o **Etc...**

Scope Control:

Should there be a need to modify the scope of the project, a scope change document will be created and will require approval from the PAC.

Quality Criteria

- No significant unproductive System Operator hours due to system unavailability (no system crashes)
- No significant system problems (software defects) preventing use of key functionality and/or operation of the system
- No significant system problems (hardware failures) preventing use of key functionality and/or operation of the system
- System performance (response time) acceptable during normal days **AND** during Major Storm Load conditions
- System has acceptable failover time to Backup system
- User Satisfaction Survey

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Employee Effectiveness Criteria

After the software has been in production use for **6** months, we will survey Key Business People to determine if their expectations have been met.

Disaster Recovery Criteria

This section is used to define the project disaster recovery requirements. This section will be reviewed and signed-off by the ASC/IT Disaster Recovery (DR) coordinator. The new systems will be designed and require extremely High Availability/Recovery criteria:

These items will be completely defined in Phase 1:

- 1. Recover Time Objective (RTO) - How quick do you need your business process back in a disaster?*
- 2. Recover Point Objective (RPO) - How much data can be lost in a disaster in terms of time?*
- 3. Recovery Readiness - Business Participation in recovery testing twice a year?*

Training/Change Management (Business Process Review) Approach

Vendor will provide "Train the Trainer" style training. Our trainers will provide the training to the users.

C O S T E S T I M A T E

WBS	O&M	Capital
1. Labor		
a. IT		\$1,623,000
b. Business		\$1,626,770
c. Consulting		\$3,565,320
d. Change Management	\$200,000	
2. Hardware		\$2,924,680
3. Software		\$2,830,000
4. Training	\$412,000	
5. Conversion	\$250,000	
6. Travel Expenses		\$66,000
7. Contingency	\$172,400	\$2,422,414
8. AFUDC		\$602,327
Totals	\$1,034,400	\$15,660,511

S C H E D U L E

	Schedule		Hours	
	Start	Complete	WBS	Hours
1. Planning	07/19/10	12/31/10	1. Labor	
2. Design	07/19/10	12/31/10	a. IT	25,000
3. Build & Test	01/01/11	TBD	b. Business	25,200
4. System Test	TBD	TBD	c. Consulting	
5. Implement	TBD	TBD	d. Change Mgmt	3,100
6. Post Implem.	TBD	TBD	2. Hardware	
7. Contingency	TBD	TBD	3. Software	
Need by Date	TBD	TBD		

Be sure to check the Lessons Learned site from previous projects!

http://sharepoint1/sites/pmo/leasons_learned/default.aspx

Project Plan



Risks					
Id	Risk	Impact	Probability	Mitigation	Fallback/Contingency
1	Mobile solution doesn't appear to meet everyone's needs. It adds a lot of risk and cost to the project. It also adds a lot of organizational impact to the project. CLOSED: No longer risk for this project; will need to be addressed in a future project.	High	0%	Redefine project to keep using OAS as mobile solution for now, which will reduce project risk and project cost along with reducing the org impact of the project. A future project will need to look at a long term mobile solution.	
2	Resources (both IT and Business Line) not available	Med	50%	Obtain Dedicated resources for the project; meet with management to ensure staff is available; increase consulting resources if necessary; <i>Review structure of project: SCADA first then other functionality?</i>	Reassess resources required; change schedule to accommodate restricted resources
3	Implementation delayed due to storms/weather	Med	Depends on schedule	Schedule implementations during low/ no weather periods	Review schedule at key project checkpoints; revise schedule as needed to accommodate weather
4	Selected system doesn't meet our requirements completely, which could result in extensive customizations.	High	25%	Select system with proven record of performance in production; select vendor with proven record of success; Modify requirements; try to minimize customizations; Negotiate strict contractual obligations.	Choose different vendor or customize product to meet our needs.
5	Project is very complex, involving multiple applications that increases risk to successful communication, testing, and implementation	High	50%	Use full change management and project management plan to ensure clear communications, specific testing plans, and successful implementation.	Use phased in approach for implementations if deemed necessary.

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6	System can't handle number of concurrent users during peak usage (storms).	High	10%	Select system that has proven track record for estimated maximum number of users; perform testing to ensure it can handle the usage requirements. Negotiate strict contractual obligations regarding performance.	
7	G/Tech	Medium	10%	Successful completion of G/Tech (GIS) implementation Project in time for ADMS implementation	Implement SCADA first. IP GIS project on track to implement summer of 2010 (partial area).

Probability: Quantify the likelihood of the risk happening in terms of a Probability percentage.

Impact: Quantify, if possible, what the cost to the project will be if the risk actually occurs or the impact to the schedule, resources, etc.

Mitigation represents the actions you are taking to avoid or minimize the risk.

Fallback/Contingency: is the activity that will occur if the risk does occur.

<p>Plans to be developed (REQUIRED)</p> <p>Planning Phase:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Change Management Plan <input type="checkbox"/> Communication Plan <input type="checkbox"/> Issue/Risk Tracking Plan <input type="checkbox"/> Documentation Plan (e.g. SharePoint, Manuals) <p>Build & Test Phase:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Test Plan(s) <input type="checkbox"/> Implementation and Back out Plan 	<p>(OPTIONAL PLANS)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Staffing Plan <input type="checkbox"/> Support Plan <input type="checkbox"/> Technology Plan <input type="checkbox"/> Training Plan <input type="checkbox"/> Data Conversion Plan ? <input type="checkbox"/> Disaster Recovery / Contingency Plan
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Project Plan



PROJECT APPROVALS

_____ Ron Pate, Business Sponsor	_____ Date
_____ David Wakeman, Business Sponsor	_____ Date
_____ Mary Heger, IT Sponsor	_____ Date
_____ Charlie Schaeffer, IT Program Manager	_____ Date
_____ David Allen, Business Program Manager	_____ Date
_____ Arthur Curle, Business Program Manager	_____ Date
_____ Sharon Harness, Project Manager	_____ Date
_____ Mary Heger, Project Approval Committee	_____ Date
_____ David Schepers, Project Approval Committee	_____ Date
_____ Ron Pate, Project Approval Committee	_____ Date
_____ David Wakeman, Project Approval Committee	_____ Date
_____ Stan Ogden, Project Approval Committee	_____ Date
_____ Bruce Fritz, Project Approval Committee	_____ Date
_____ *Disaster Recovery Review - Planning Phase	_____ Date
_____ *Information Security Review - Planning Phase	_____ Date
_____ *Information Security Review - Design Phase	_____ Date
_____ *Information Security Review - Build/Test Phase	_____ Date

**Information Security must review the project plan and deliverables at the plan, design, and build/test phases to ensure proper security controls are in place.*