



“Maximo’s Role in TVA’s Enterprise Systems Program”

**Maximo Utility Working Group
Keynote Speech**

**Bob Rausch, ESP Program Manager
November 5, 2007**

Welcome & Introductions

Welcome to TVA!



TVA Background

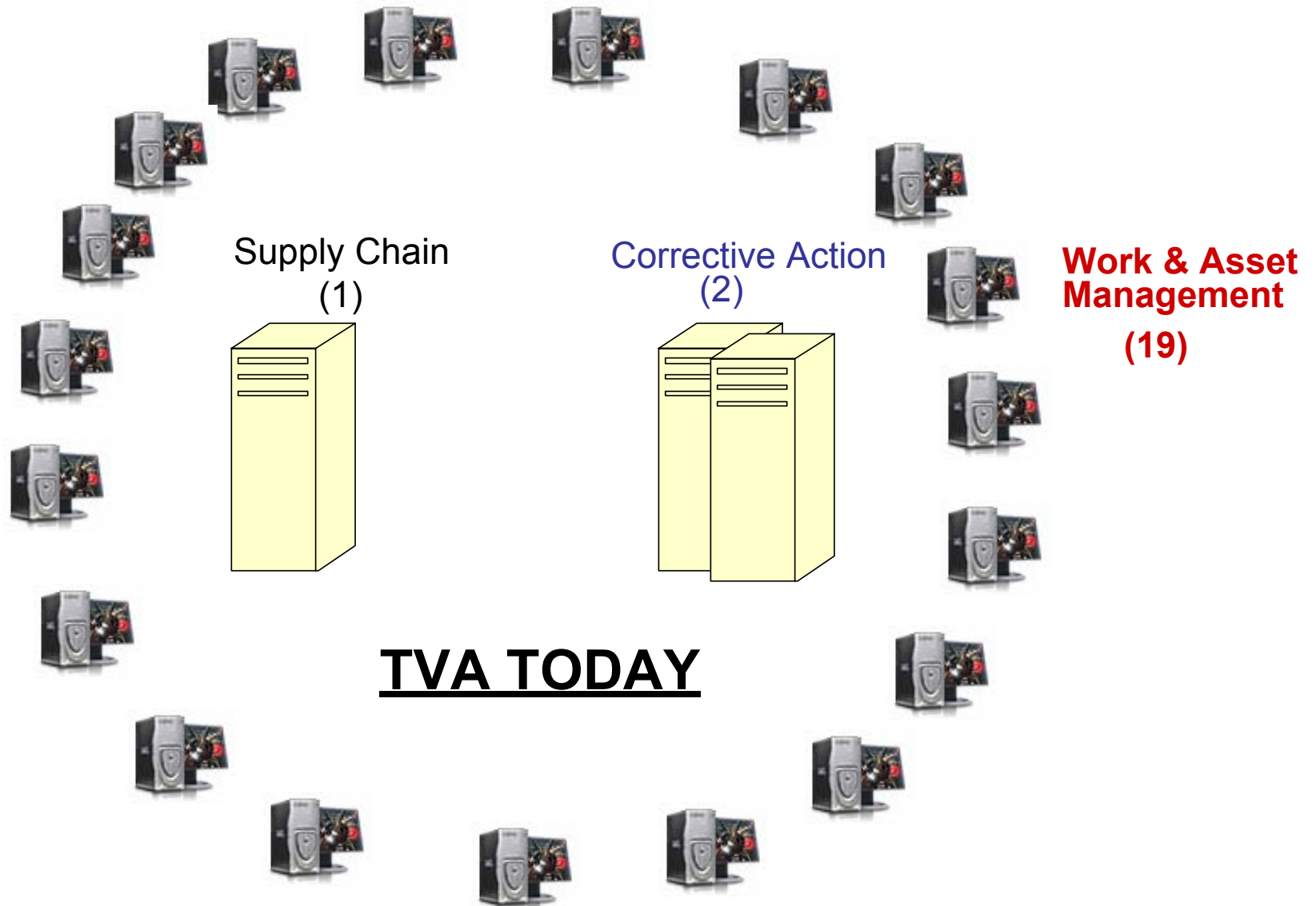
- TVA was founded in 1933 under the New Deal, the Peacetime Domestic Program of U.S. President Franklin D. Roosevelt and approved by Congress in the TVA act
- TVA sold more than 176 billion kilowatt-hours (kWh) of electricity and earned revenues of more than \$9.1 billion in fiscal year 2006, making it the largest public power provider in the nation.
- TVA supplies power to 158 distributors who serve over 8 million people in 7 states
- 80,000 square miles of service territory

TVA Background

- 11 fossil plants with 59 units on line
- 3 nuclear plants with 6 units on line and 1 in construction
- 29 hydroelectric dams with 109 units on line with 49 flood control dams
- 8 combustion-turbine sites and 1 combined cycle for a total of 83 units
- A pumped-storage facility with 4 units
- 11 solar generation sites
- 1 wind power site
- 17,000+ miles transmission system, 535 sub stations, and 1,032 inter-change points

TVA's transmission system delivered power to our customers with 99.999 percent reliability for the 8th year in a row!

The Case for Change



TVA's Strategic Vision

Vision

A business environment that enables efficient processes, transforms volumes of data into meaningful information, is easily accessible across the enterprise, and supports TVA's strategic objectives.

Mission

Provide innovative process solutions enabled by technology that help TVA achieve business objectives.

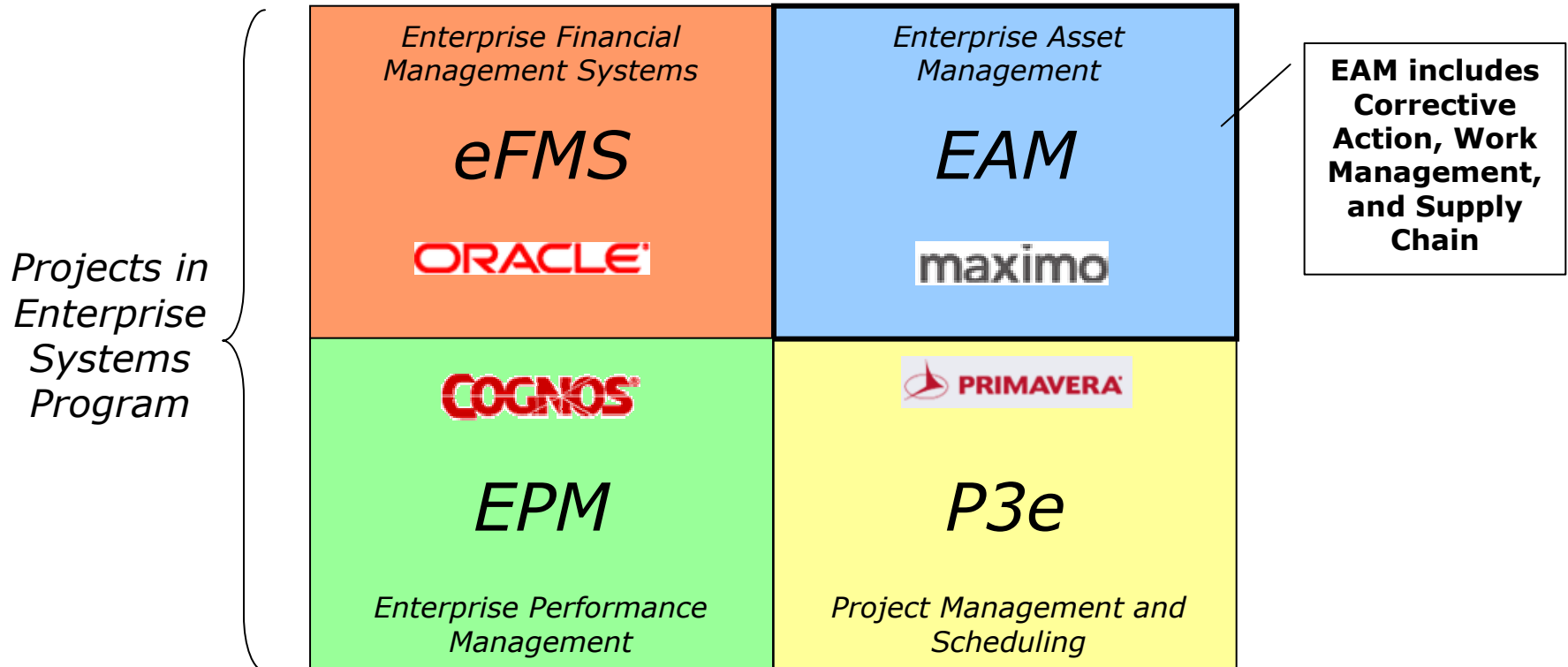
Guiding Principles

- | | |
|---|---|
| <ul style="list-style-type: none"> • Transform processes across SBU's to meet Top Quartile Benchmark performance (e.g., technology-enabled process improvement) • Simplify and streamline the General Ledger by removing operational and performance reporting detail • Reduce complexity of Information Systems applications and architecture • Standardized estimating, budgeting and long-range forecasting processes • Development of Data Strategy consistent with Industry Best Practices including operational data stores, data warehouses, data marts and business intelligence | <ul style="list-style-type: none"> • Remove and retire Access as a desktop database product • One Version of Truth • Retire applications being replaced / sunset as soon as possible • Enter data as close to the source and occurrence of the event as possible • Eliminate duplicate data/data entry • No modifications to base package internal code • Strengthen Internal Control environment by full utilization of integration capabilities inherent within the Oracle Financial and EAM Suites • Ability to track costs - Asset Hierarchy Detail |
|---|---|

Enterprise Systems Program

Through the Enterprise Systems Program (ESP), TVA is transforming the way we do our work.

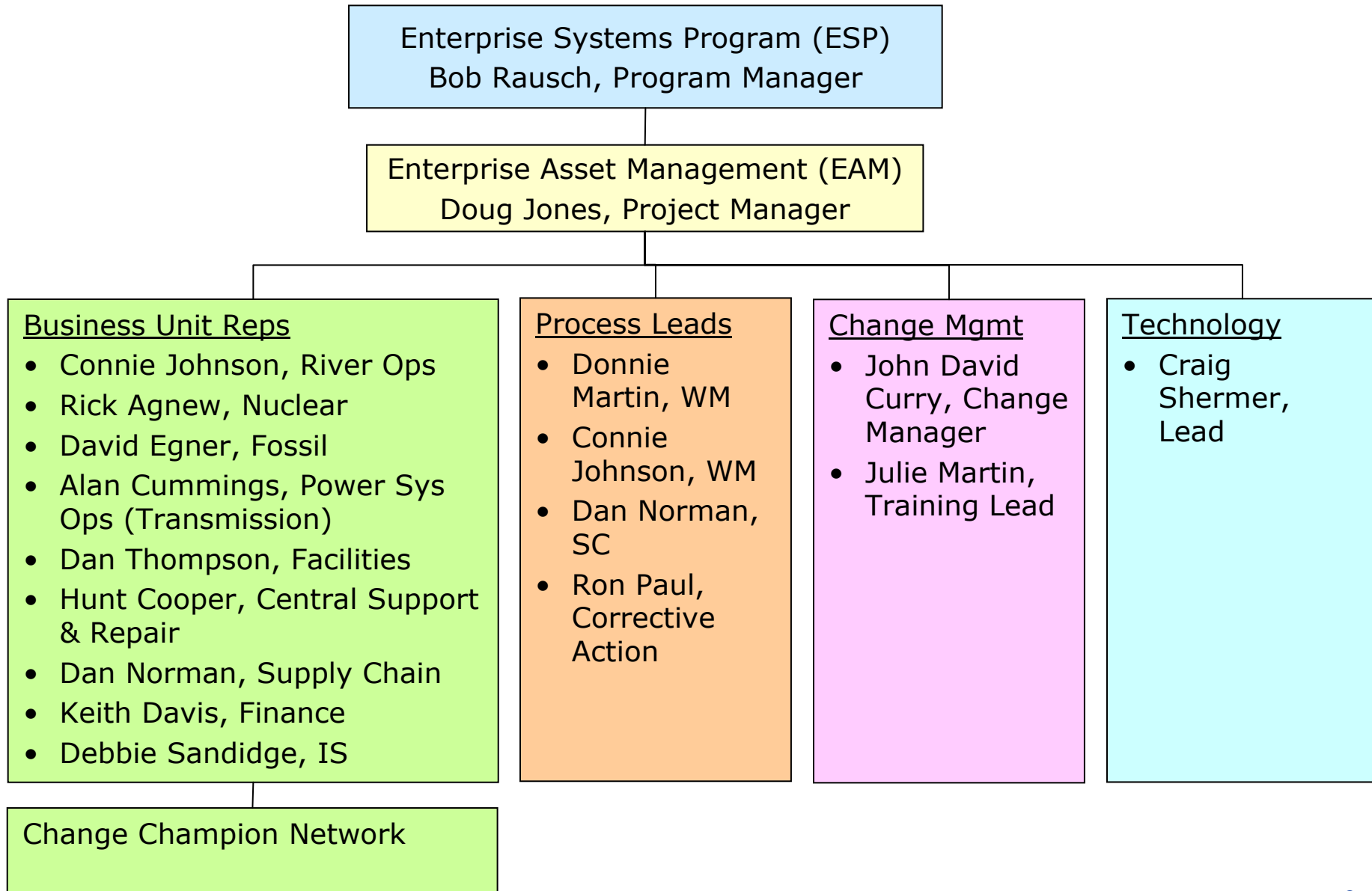
- In order to achieve an efficient and effective business environment, we have been tasked to create innovative process solutions to streamline and standardize our work.
- Within the context of Sustainable Performance Improvement, the current scope of ESP includes 4 projects conducted FY '06 through FY '09.
- These projects will enable TVA to meet Top Quartile Benchmark performance.



Selecting Maximo

- Software selecting took 18 months
- Attended user groups and seminars to investigate software capabilities and customer experiences
- Catalogued and benchmarked what US Utilities were using for work and asset management, supply chain and corrective action
- RFP to 10 software vendors
- Evaluated results using Kepner Tregor methodology to come up with short list of three vendors
- IBM/MRO Maximo eventually selected

Enterprise Asset Management (EAM) Team



Key Decisions – Corrective Action Program

- Maintain security roles in Maximo instead of HRIS
 - Improve flexibility and control for SBUs
 - Adopt standard industry practice
- Streamline use of error codes across the enterprise
 - Reduce complexity for end users
 - Simplify reporting
- PERs can be closed to Work Order except for Level A and MRC discretion
 - Streamline current process
 - Adopt industry standard
- Agreement to eliminate unnecessary reviews from the corrective action process
 - Cause Org CAP review
 - Facility Manager CAP review
 - Senior Manager CAP review
 - Supervisor effectiveness review
 - MRC effectiveness review
 - Supervisor functional evaluation
 - FE and OPS review (combined)

Key Decisions – Work and Asset Management

- Use service request/work order for all work
 - Consistent point-of-entry across the fleet
- Planners/engineers identify majority of material and service requirements before work order is approved; all identified requirements must be completed before work order is released for scheduling
 - Improves productivity and reduces cost
- Material returns integrated with the work order close-out process
- Capture daily time and material charges
 - Improve tracking of job status and associated costs
- Preventative maintenance built in early in the asset lifecycle
 - No more manual 'copy and pasting' to trigger PM orders
- Spending priorities will be established at the plant level rather than individual departments or functions
 - Resources are focused in the areas of most need
- Agreement to provide accurate material need dates and forecasts to Supply Chain
 - Reduced procurement costs and improved productivity from less SC expediting

Key Decisions – Supply Chain

- Use catalog items for majority of requisitions
 - 56% material reservation lines ordered by catalog ID in FY 2007
 - Opportunity to reduced procurement costs by maximizing use of leveraged contracts
- Manage inventory at the enterprise level rather than SBU level
 - Optimize overall inventory levels and lower total ownership cost
- Collaborate with WM on catalog descriptions to assist in locating existing material
 - More efficient utilization of resources (know material availability before scheduling)
- Implement key measurements to drive fleet-wide mentality for inventory optimization
 - Use key measurements to drive improvements
- Fleet-wide warranty management strategy for TVA
 - Ensure TVA receives benefits to which it is entitled under warranty
- Standardize equipment classification across the fleet to enable identification and management of rotating equipment
 - Establish consistent performance tracking of 'critical' rotating equipment

Key Challenges

- Using Maximo workflow capabilities effectively
- Deployment approach
- Change management
- Achieving and sustaining benefits from business case
- Retiring stand-alone databases

Thank you!

Enjoy your stay in Chattanooga!

If there is anything we can do for you to make your stay more enjoyable, please contact Donnie Martin at 423.751.6065.



Contact List

Name	Org	Phone	Email
Bob Rausch	ESP Program Manager	423.751.8544	rrrausch@tva.gov
Doug Jones	EAM Project Manager	423.751.7209	dljones@tva.gov
John David Curry	Change Management	423.751.3129	jdcurry@tva.gov
Donnie Martin	Work Management	423.751.6065	rdmartin@tva.gov
Ron Paul	Corrective Action Program	423.751.6217	rlpaul@tva.gov
Dan Norman	Supply Chain	423.751.7083	jdnorman@tva.gov
Connie Johnson	River Operations Rep	423.751.2470	cejohnson@tva.gov
Dan Thompson	Facilities Management Rep	423.751.3084	drthompson@tva.gov
David Egner	Fossil Power Group	423.751.3088	dlegner@tva.gov
Craig Shermer	Information Systems	423.751.7411	clshermer@tva.gov
Debbie Sandidge	Information Systems	423.751.7823	djsandidge@tva.gov
Rick Agnew	Nuclear Power Group	423.751.3086	rdagnew@tva.gov
Alan Cummings	Power System Operations	423.751.3085	awcummings@tva.gov
Hunt Cooper	Central Support and Repair	423.751.2997	jhcooper@tva.gov
Keith Davis	Finance	865.632.6366	ekdavis@tva.gov