

Maximizing Your Enterprise Asset Management with a Strategic Roadmap

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Moderator

Matt Logsdon

Executive Vice President



Matt Logsdon has been providing work and asset management services and software to asset-intensive companies for more than 30 years. Matt has helped organizations pursue their operational excellence journey, assisting with technology, people and process guidance.



About our Organization





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Discussion: Maximizing EAM with a Strategic Roadmap

Common Challenges

- Time & Resource Constraints
- Lack of Business Process Maturity
- Compounded by existing EAM systems that fall short of expectations
 - Fragmented & typically lack integration / interoperability
 - Data quality & related confidence is poor
- Not following their Strategies & Goals
 - Goals don't translate into action
 - KPIs unaligned with business objectives



Where can you go with a good EAM roadmap?



What we're seeing?

- Existing facility digitally captured using drone photography
- New proposed Capital Assets overlaid with existing infrastructure
- Available within Maximo integrated with Bentley AssetWise
- Allow the maintenance planner to step onto the jobsite without leaving his desk or smart device



Where can you go with a good EAM roadmap?



What can this do for us?

- Overlay of physical assets and augmented reality
- Allows the job plan to be "visualized" through the animation overlay
- Additionally serves as a means of providing training on standardized procedures





Presenter

Stephen Miller

Senior Business Process Consultant



Stephen's background includes; Maintenance, Asset, Reliability, Inventory Management and Business Process Improvement. He has experience with a variety of industries covering; Oil & Gas, Manufacturing, Facilities, and Health Care. This mixture of skillsets and experience provides Stephen with a unique perspective and ability to help organizations identify, develop, and execute strategic continuous improvement initiatives.



EAM Related Business Challenges - Expanded

Common Challenges

- Time and resource constraints
- Lack of Business Process maturity
- Existing EAM systems that fall short of expectations
 - Fragmented and typically lack Integration / Interoperability
 - Data quality and related confidence is poor
- Not following their Strategies & Goals
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Some Causes

- Resources not aligned to the work, assignment based on bandwidth
- Business Processes are left on the shelf collecting dust
- EAM Systems used to solve a business problem, rather than to support the Business Process
- Tomorrow is always there
 - We are too busy now we can plan later
 - Just "fix" this, we can fix the rest later
- Without clear direction, goals, and plans - What can you measure?



To improve we need clear purpose & direction

To effect change Everything must be aligned

- Leadership Must be actively involved – what interests my boss fascinates me
- Process Improvement alone won't make you efficient
- Systems & Tools Updates alone won't make you effective
- KPIs What gets measured gets done, are we really managing our performance?







Our Study

Three U.S. Pipelines



Three U.S. Pipelines – Profiles

Company A

- Crude & Products
- Across ~15% of US
- Internal & External Customers
- DOT/PHMSA & PSM Regulated

Company B

- Hydrocarbon Products
- Across ~25% of US
- Primarily External Customers
- DOT/PHMSA & PSM Regulated

Company C

- Natural Gas
- Across ~10% of US
- Primarily Internal Customers
- DOT/PHMSA Regulated

Each have between 2,000-6,000 Miles of maintained pipeline



Three U.S. Pipelines – Constraints/Unique Challenges

Company A (Crude & Products)

- Multiple Complete Business Units
- Multiple Unique Work Processes & EAM Systems from acquisitions
- 15+ Functional Work Groups

Company B (Hydrocarbon Products)

- >10 Operational areas, each with their own way of doing business
- Across 30+ functional work groups
- Multiple False Starts in the past 10 years

Company C (Natural Gas)

- Siloed Engineering groups
- 100% paper for regulatory tracking
- No formal work processes
- Very lean workforce to take on Change activities



What We Did – A Simple Standard Approach

Start with the end in mind

 Working Session(s) to Define Success - Vision

Assess current state

- Interviews:
 - Executive Leadership
 - Operational Managers
 - Field Supervisors
 - Field Personnel
- Data Collection:
 - Business Processes
 - System Utilization
 - Data Standards

Understand the Maturity & Build a big picture

- Leadership Support
- Business Processes
- Systems/Tools Landscape
- Effective Practices
- Goals & Drivers / KPIs & Measures



Start the Roadmap

- Outline core workstreams
- Sequence "next steps" based on current state & vision
- Time phase based on reasonable levels of effort
- Intermix quick wins & longterm activities
- Working session(s) to align potential with reality and expectations



Three U.S. Pipelines – What did we find?

- All had strong executive leadership support (CIO/VP/Directors)
- All had goals & drivers related to Risk reduction for Work Management and Regulatory/Compliance work
- All had a mixture of concentrated & distributed work forces

Company A (Crude & Products)

- Needed unification & consolidation of Maintenance business processes
- Needed to build the foundation for future unification

Company B (Hydrocarbon Products)

- Needed a quick win
- Needed a simplified Interface
- Needed consistency in usage

Company C (Natural Gas)

- Needed to modernize & ensure adoption
- Needed to do it right from the start, as there will never be a second time



Three U.S. Pipelines – Roadmaps – Company A

- Change Management
 - To align the business units
 - Prepare a culture of Continuous Improvement
- Reliability Driven Asset & Work Management
 - Start gathering data now, to use in the future
 - Focus on critical path
 - Expand as appropriate
- Systems & Tools
 - Deploy standard EAM system
 - Establish governance across Business units







Three U.S. Pipelines – Roadmaps – Company B

- Change Management
 - Show improvements can happen
 - Drive business process improvement
- Seamless User Experience
 - Simplify & standardize interface
 - Standardize reporting & metrics
- Work & Asset Management
- Record Management
 - One source of truth
 - Consolidate data
- Platform Consolidation One EAM
- Go Mobile
 - One Mobile platform for asset related work













Three U.S. Pipelines – Roadmaps – Company C

- Regulatory Compliance
- Asset Management
- EAM System
 - Including Mobile Solution
- Work Management
- Mechanical Integrity
- Inventory Management





Three U.S. Pipelines – Successes

Company A (Crude & Products)

- Asset Register built, & Work Order System deployed to 50% of system in 9 months – Other 50% took 4 months & goes live this month
- Next year's plans & budgets already in the works

Company B (Hydrocarbon Products)

- Reduced time to complete compliance documentation in Maximo from >90 days to <2 days
- Single simplified mobile solution so effective, full roll out was accelerated by more than 9 months
- Operations also adopting the same mobile solution

Company C (Natural Gas)

- From paper to iPads in
 <1 year (Compliance)
- From zero EAM system to over 30K assets & 5K PMs
- GIS Integration/Maps
- Aggressively aligning non-Compliance Work
- Next year's plans & budgets already in place



When Creating Your Roadmap...

What you do need are:

- A definition of success Vision
- A commitment to make change
 - Support from management & leaders
 - Motivation for the organization
- A process in which to operate
 - Institutionalize effort to ensure sustainment
 - Make Continuous Improvement the norm
- And a plan a Roadmap
 - Time phased goals & initiatives
 - With interdependencies mapped

Samples (initial) Definitions of Success:

- Company A (Crude & Products)
 - All PM & CM captured on Work Orders & all maintainable equipment recorded within Maximo
- Company B (Hydrocarbon Products)
 - All work on equipment captured on Work Orders and completed in a timely manner
- Company C (Natural Gas)

Predictive

Preventive

Reactive

 All Regulatory equipment recorded within Maximo and all regulatory work recorded on Work Orders

Improvement

Reliable

Common Pitfalls in Building a Roadmap

- Thinking you need to do a 'deep dive' before you can start
 - You need to set A Direction & keep focus!
 - Continuously improve over time nothing is ever perfect!
- Focusing only one or two areas for improvement
 - Execution may focus on one or two at a time, but strategic planning MUST consider the larger picture
 - A Roadmap should Include elements which complement each other – Tick-Tock – Intermix Effectiveness & Efficiency improvements & Monitor/Measure it!
- Using project plans as Roadmaps
 - Project Plans are Short-Term and used to manage tactical activities
 - Roadmaps are Long-Term and are flexible to support strategic planning





Keep in Mind – Roadmaps are living documents!

Real Roadmaps are meant to be Continuously Updated!

- Mark Progress
- Highlight Current Focus
- Show New Goals & Paths
- Should Evolve with the Organization
 - Competitive Landscape
 - Organizational Growth
 - Systems & Tools Maturity
- Continuously Evolving

Don't expect to finish, expect a journey







Conclusion

- It's a journey & every journey needs a map not just a destination
- A map used for navigation to help provide direction
- Think strategic execute tactically
 - Well planned projects support the big picture
 - When efforts are aligned they are more likely to get buy-in & support, which ultimately, makes them successful
- To build a Roadmap:
 - Know where you want to go Learn from others
 - Know where you are currently *Get an Assessment*
 - Know how to effect change in your organization





Thank you & Questions?

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