



Productivity
through Technology

PTT Scenario Analysis

November 22, 2013



PTT Scenario Analysis

Summary Scenario Scope Definition

Transformation Scenario	#	Scope definition (initiatives)
Process + Technology Maintenance (Current Technology Platforms)	1	<ul style="list-style-type: none"> - All process scope associated with PTT wave 1 and wave 2 scope including Finance - GL and CoA, WAM, Scheduling & Mobility, and any Asset Analytics, System Intelligence assumed on current technology (JDE, Maximo, Ventyx, etc.) - Maintain current technology / technical upgrades; minor technology enhancements per IT plan
Process + Partial Reimplementation of In-house Technology (GL/CoA OR EAM, Scheduling, Mobile)	2	<ul style="list-style-type: none"> - Same process scope as #1 (variant of process given technology changes) - Standardize GL and redesign CoA on latest JDE version - WAM, Scheduling & Mobility, Asset Analytics, System Intelligence assumed on current technology (Maximo, Ventyx, etc.)
	3	<ul style="list-style-type: none"> - Same process scope as #1 (variant of process given technology changes) - GL and CoA assumed on current technology (JDE) - Standardize WAM, Scheduling & Mobility, and SC on latest version of Maximo (Nuclear, Fossil, Electric T&D, and Gas)
Process + Reimplementation of In-house Technology (GL/CoA AND EAM, Scheduling, Mobile)	4	<ul style="list-style-type: none"> - Same process scope as #1 (variant of process given technology changes) - Standardize GL and redesign CoA on latest JDE version - Standardize WAM, Scheduling & Mobility, and SC on latest version of Maximo (Fossil, Electric T&D, and Gas) - Nuclear assumed on current technology (Ventyx)
	5	<ul style="list-style-type: none"> - Same scope as #4 with exception of Nuclear - Nuclear in scope for standardization on latest version of Maximo
Integrated Process + New Enterprise Standardized Technology (wave 1+2)	6	<ul style="list-style-type: none"> - Same process scope as #1 (variant of process given technology changes) - Standardize GL/CoA, WAM, Scheduling & Mobility, and SC on SAP



PTT Scenario Analysis

*Outstanding Sub-Question to #3 (JDE v. Integrated Solution)
Upgrade JDE or implement SAP?*

Upgrade JDE – Scenario #3

Upgrade to stabilize current system with negligible value/benefit.

Reduced Risk

- Eliminate risk associated with unsupported application

Improved Information

- Minor improvements in work order spend
- Minor improvements in account maintenance

Scalability

- No increased scalability

Implement Integrated Solution

Create platform to drive integrated solutions and deliver qualitative value and benefits through the organization.

Reduced Risk

- Eliminate risk of an unsupported application
- Single, consistent source of financial information
- Replace manual work with more value focused analytic efforts
- Less complex and more stable IT environment; easier to maintain

Improved Information

- Potential for tight integration with operations
- More available chart fields and attributes
- Greater transparency and drill down capability
Simplified data structure

Scalability

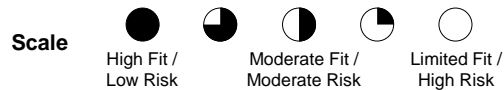
- Scalable to a significantly higher transaction volume
- Common, standard data structure



PTT Transformation Scenario Analysis

Scenario Comparison - Alignment/Risks

Scenario	Fit/Alignment To...			Risks...			
	Business and Technical Complexity (Integration, Data, etc.)	Future State Operating Model	IT Strategic Direction & Plan	Implementation Risk / Program Complexity	Sustainment Risk	Business Operations Risk	IT Operations Risk
#1	○	◐	○	◐	○	○	○
#2	◑	◐	◑	◐	◑	○	○
#3	◐	◐	◐	◑	◐	◐	◐
#4	◐	◐	◐	◑	◐	◐	◐
#5	◐	◐	◐	○	◐	◐	◐
#6	●	●	●	○	◐	●	●



Note: See appendix for detailed fit/alignment and risks for each scenario



PTT Scenario Analysis

Pros and Cons

	Scenario #1	Scenario #2	Scenario #3	Scenario #4	Scenario #5	Scenario #6
Pros	<ul style="list-style-type: none"> - Lowest cost - Addresses short-term technical / system operational risk - Process changes can be implemented in a shorter duration - Core systems current / technically compliant at end of year 4 	<ul style="list-style-type: none"> - Addresses / long-term technical / system operational risk for JDE - Addresses short-term technical / system operational risk for Passport / Maximo - WAM process changes can be implemented in a shorter duration - Introduces Finance system controls - Core systems current / technically compliant at end of year 4 	<ul style="list-style-type: none"> - Addresses long-term technical / system operational risk for WAM platforms - Addresses short-term technical / system operational risk for JDE - Addresses most critical systems early in the overall program lifecycle - Simplifies the overall WAM environment - Introduces WAM system controls to support process changes - Enables mobility 	<ul style="list-style-type: none"> - Addresses long-term technical / system operational risk of both the JDE and WAM platforms - Simplifies the overall technology environment - Introduces Finance and WAM system controls to support process changes - Enables mobility 	<ul style="list-style-type: none"> - Addresses long-term technical / system operational risk of both the JDE and WAM platforms - Simplifies the overall technology environment - Introduces system controls to support process changes - Enables mobility 	<ul style="list-style-type: none"> - Most positive NPV - Greatest ability to capitalize changes - Fully addresses long-term technical / system operational risk - Reduces potential need for future investment to consolidate legacy platforms - Simplifies the overall technology environment - Best aligns with IT strategic plan - Introduces system controls to support process changes - Enables mobility
Cons	<ul style="list-style-type: none"> - Lowest NPV - High O&M / D&R would be expensed - Does not address business and technical complexity - Requires a more robust change management sustain changes - Does not enable mobility 	<ul style="list-style-type: none"> - High O&M / most D&R would be expensed - Does not fully address business and technical complexity - Requires a more robust change management sustain changes - Does not enable mobility 	<ul style="list-style-type: none"> - May require a complex integration and/or translation engine between consolidated WAM and legacy JDE platform / technology - JDE will not be current / technically compliant until the end of year 5 - Consolidated WAM platform / technology may have to be integrated with 2 financial platforms - Organization impact is significant - ~5,300 users have to migrate from Passport to Maximo 	<ul style="list-style-type: none"> - Legacy systems remain technically / support non-compliant while new platforms are being implemented - May require a complex integration and/or translation engine between legacy WAM platform / technology and consolidated JDE platform / technology while the new WAM platform / technology is being designed, built, and implemented - Organization impact is significant - ~5,300 users have to migrate from Passport to Maximo 	<ul style="list-style-type: none"> - Legacy systems remain technically / support non-compliant while new platforms are being implemented - May require complex integration between legacy WAM platform / technology and consolidated JDE platform / technology while the new WAM platform / technology is being implemented - Organization impact is significant - ~6,800 users have to migrate from Passport to Maximo 	<ul style="list-style-type: none"> - Highest cost - Legacy systems remain technically / support non-compliant while new platforms are being implemented - May require complex integration between legacy WAM platform / technology and new finance functionality while the new WAM platform / technology is being implemented - Organization impact is most significant - all users will have to migrate from current platforms to SAP - New IT skills (e.g., SAP) need to be developed



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #1 (Page 1 of 2)

Scenario #1: Process Transformation and Current Technology Platform Maintenance

Scope Definition	<ul style="list-style-type: none"> - All process changes associated with PTT waves 1 and 2 scope (incl. finance) with all process changes enabled by current technology - No new technology introduced into the environment - The finance, WAM, scheduling, mobility, and supply chain platforms / applications assumed to remain on current technology - JDE, Maximo, Ventyx (Passport) - The current technology is maintained to address technology risk - technical upgrades completed on an as needed / required basis - Minor technology enhancements to continue per the IT plan
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Cost Profile (Cash View)		
O&M	Capital	Total
\$64	\$25	\$90



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #1 (Page 2 of 2)

Scenario #1: Process Transformation and Current Technology Platform Maintenance

Risks	<ul style="list-style-type: none"> - Postpones the investment / replacement of core systems while mitigating short term technical / operational risk - Upgrading core systems to the most current version might require significant investment to cleanse and migrate data; this investment is unknown at this point and not included in the overall cost of scenario #1 (NOTE: a key assumption is to port data from the legacy technology using standard data migration tools) - Carries a risk that process changes will be eroded without a new technology platform and improved system controls
Pros	<ul style="list-style-type: none"> - Addresses / mitigates short-term technical / system operational risk - Process changes can be implemented in a shorter duration vs. more technology heavy scenarios thus accelerating benefits - Based on the current sequencing / timing, at the end of year 4, core systems will be current / technically compliant
Cons	<ul style="list-style-type: none"> - Does not address integration complexity, data integrity, and standards disparity; contradicts the IT strategic direction and roadmap - Requires a more robust change management / performance management program and discipline to enable process change and benefit sustainment; assumption is no / limited technology controls to help support change - Does not provide the system configuration and infrastructure to support a mobility capability



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #2 (Page 1 of 2)

Scenario #2: Process Transformation, JDE Consolidation, and Current Technology Platform Maintenance

Scope Definition	<ul style="list-style-type: none"> - All process changes associated with PTT waves 1 and 2 scope (incl. finance); all process changes enabled by current technology with exception of JDE which is enabled by consolidated / upgraded technology - Financial platforms, JDE and JDE-ES, are standardized / consolidated with a redesigned GL and chart of accounts - The WAM, scheduling, mobility, and supply chain platforms / applications assumed to remain on current technology - Maximo, Ventyx - The current WAM technology is maintained to address technology risk - technical upgrades completed on an as needed / required basis - Minor technology enhancements to continue per the IT plan
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Cost Profile (Cash View)		
O&M	Capital	Total
\$74	\$46	\$120



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #2 (Page 2 of 2)

Scenario #2: Process Transformation, JDE Consolidation, and Current Technology Platform Maintenance

Risks	<ul style="list-style-type: none"> - Postpones the investment / replacement of most core systems (Passport, Maximo) while mitigating short term technical / operational risk - Although scenario #2 does not include significant enhancements to Passport and Maximo, a redesigned GL and chart of accounts will require changes to the WAM platforms to align to the new GL / CoA and achieve the finance enabled benefits; the total cost of scenario #2 could be much higher due to finance / WAM alignment - A sophisticated / complex integration will be required between WAM and the new JDE platform / technology; the cost of this integration is unknown at this point and not built into the cost of scenario #2 - Other applications (CIS, Core HR/PeopleSoft) beyond the scope of PTT will likely have to be modified to align to the new GL / CoA - The technical upgrade of Passport and Maximo are delayed to align with the new GL / CoA - Upgrading core systems to the most current version might require significant investment to cleanse and migrate data; this investment is unknown at this point and not included in the overall cost of scenario #2 (NOTE: a key assumption is to port data from the legacy technology using standard data migration tools) - Carries a risk that WAM process changes will be eroded without a new technology platform and improved system controls
Pros	<ul style="list-style-type: none"> - Addresses / mitigates long-term technical / system operational risk for JDE and short-term technical / system operational risk for Passport / Maximo - WAM process changes can be implemented in a shorter duration vs. more technology heavy scenarios thus accelerating benefits - Based on the current sequencing / timing, at the end of year 4, core systems will be current / technically compliant
Cons	<ul style="list-style-type: none"> - Does not fully address integration complexity, data integrity, and standards disparity; contradicts the IT strategic direction and roadmap - Requires a more robust change management / performance management program and discipline to enable WAM process change and benefit sustainment; assumption is no / limited technology controls to help support change - Does not provide the system configuration and infrastructure to support a mobility capability



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #3 (Page 1 of 2)

Scenario #3: Process Transformation, WAM Consolidation, and Current Technology Platform Maintenance

Scope Definition	<ul style="list-style-type: none"> - All process changes associated with PTT waves 1 and 2 scope (incl. finance); finance process changes enabled by current technology; WAM process changed enabled by consolidated / upgraded technology - The finance platforms / applications assumed to remain on current technology – JDE and JDE-ES (no redesigned GL and chart of accounts) - WAM platforms, Passport and Maximo, standardized / consolidated (includes scheduling, mobility, and supply chain) for all lines of business (including Nuclear) and jurisdictions - JDE and JDE-ES are maintained to address technology risk - technical upgrades completed on an as needed / required basis - Minor technology enhancements to continue per the IT plan
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Cost Profile (Cash View)		
O&M	Capital	Total
\$81	\$155	\$237



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #3 (Page 2 of 2)

Scenario #3: Process Transformation, WAM Consolidation, and Current Technology Platform Maintenance

Risks	<ul style="list-style-type: none"> - Postpones the investment / replacement of the finance systems while mitigating short term technical / operational risk - Although scenario #3 does not include significant enhancements to JDE and JDE-ES, a consolidated WAM platform / technology may require a consolidation of the finance platform / technology (assumption is new WAM platform / technology is designed with a new GL / CoA in mind); the total cost of scenario #3 could be similar to scenario #5 if JDE and JDE-ES would need to be consolidated - A sophisticated / complex integration / translation will be required between legacy JDE and the new WAM platform / technology; the cost of this integration / translation is unknown at this point and not built into the cost of scenario #3 - The technical upgrade of JDE / JDE-ES is delayed to align with the new WAM platform / technology - Upgrading JDE to the most current version might require significant investment to cleanse and migrate data; this investment is unknown at this point and not included in the overall cost of scenario #3 - Implementation risk is significant with all lines of business and jurisdictions in scope for the WAM consolidation
Pros	<ul style="list-style-type: none"> - Addresses / mitigates long-term technical / system operational risk of the WAM platforms / technology; addresses most critical systems early in the overall program lifecycle; addresses short-term technical / system operational risk of JDE - Simplifies the overall WAM environment - reduces overall integration complexity (less systems to integrate), improves data integration, and addresses standards disparity – better aligns with IT strategic direction and roadmap - Consolidated WAM platform / technology introduces system controls into the environment which will help support process changes - Provides the system configuration and infrastructure to support a mobility capability and achievement of mobility benefits
Cons	<ul style="list-style-type: none"> - May require a complex integration and/or translation engine between consolidated WAM and legacy JDE platform / technology - JDE technical upgrade would likely have to be postponed and will not be current / technically compliant until year 5 - Consolidated WAM platform / technology may have to be integrated with 2 financial platforms / technology - Organization impact is significant as ~5,300 users have to migrate from Passport to Maximo



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #4 (Page 1 of 2)

Scenario #4: Process Transformation, JDE and WAM Consolidation (Excluding Nuclear)

Scope Definition	<ul style="list-style-type: none"> - All process changes associated with PTT waves 1 and 2 scope (incl. finance); finance and WAM process changes (excluding nuclear) enabled by consolidated / upgraded technology - Nuclear WAM assumed to remain on current technology - WAM platforms, Passport and Maximo, standardized / consolidated (includes scheduling, mobility, and supply chain) for all lines of business (excluding nuclear) and jurisdictions - Nuclear WAM is maintained to address technology risk - technical upgrades completed on an as needed / required basis - Minor technology enhancements to continue per the IT plan (as needed)
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Cost Profile (Cash View)		
O&M	Capital	Total
\$88	\$145	\$233



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #4 (Page 2 of 2)

Scenario #4: Process Transformation, JDE and WAM Consolidation (Excluding Nuclear)

Risks	<ul style="list-style-type: none"> - While the new JDE and WAM platforms / technology are being designed, built, and implemented, legacy platforms / technology remain unsupported and at risk for significant operational / system failure - A sophisticated / complex integration / translation will be required between legacy Nuclear WAM platform / technology and the new JDE platform / technology; the cost of this integration / translation is unknown at this point and not built into the cost of scenario #4 - If JDE platform / technology is consolidated before WAM platform / technology, there is a risk of a “double touch” on the WAM platforms / technology to ensure legacy WAM platforms / technology align with the consolidated JDE platform / technology while the new WAM platform / technology is being designed, built, and implemented - Implementation risk is significant with all lines of business except Nuclear and jurisdictions in scope for the WAM and JDE consolidations
Pros	<ul style="list-style-type: none"> - Addresses / mitigates long-term technical / system operational risk of both the JDE and WAM platforms / technology - Simplifies the overall technology environment - reduces integration complexity, improves data integration, and addresses standards disparity – better aligns with IT strategic direction and roadmap - Consolidated JDE and WAM platform / technology introduces system controls into the environment which will help support process changes - Provides the system configuration and infrastructure to support a mobility capability and achievement of mobility benefits
Cons	<ul style="list-style-type: none"> - Legacy systems remain technically / support non-compliant while new platforms are being designs, built, and implemented - May require a complex integration and/or translation engine between legacy WAM platform / technology and consolidated JDE platform / technology while the new WAM platform / technology is being designed, built, and implemented - Organization impact is significant as ~5,300 users have to migrate from Passport to Maximo



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #5 (Page 1 of 2)

Scenario #5: Process Transformation, JDE and WAM Consolidation (Including Nuclear)

Scope Definition	<ul style="list-style-type: none"> - All process changes associated with PTT waves 1 and 2 scope (incl. finance); finance and WAM process changes enabled by consolidated / upgraded technology - WAM platforms, Passport and Maximo, standardized / consolidated (includes scheduling, mobility, and supply chain) for all lines of business and jurisdictions - Minor technology enhancements to continue per the IT plan (as needed)
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Cost Profile (Cash View)		
O&M	Capital	Total
\$93	\$172	\$265



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #5 (Page 2 of 2)

Scenario #5: Process Transformation, JDE and WAM Consolidation (Including Nuclear)

Risks	<ul style="list-style-type: none"> - While the new JDE and WAM platforms / technology are being designed, built, and implemented, legacy platforms / technology remain unsupported and at risk for significant operational / system failure - If JDE platform / technology is consolidated before WAM platform / technology, there is a risk of a “double touch” on the WAM platforms / technology to ensure legacy WAM platforms / technology align with the consolidated JDE platform / technology while the new WAM platform / technology is being designed, built, and implemented - Implementation risk is significant with all lines of business and jurisdictions in scope for the WAM and JDE consolidations
Pros	<ul style="list-style-type: none"> - Addresses / mitigates long-term technical / system operational risk of both the JDE and WAM platforms / technology - Simplifies the overall technology environment - reduces integration complexity, improves data integration, and addresses standards disparity – better aligns with IT strategic direction and roadmap - Consolidated JDE and WAM platform / technology introduces system controls into the environment which will help support process changes - Provides the system configuration and infrastructure to support a mobility capability and achievement of mobility benefits
Cons	<ul style="list-style-type: none"> - Legacy systems remain technically / support non-compliant while new platforms are being designs, built, and implemented - May require complex integration between legacy WAM platform / technology and consolidated JDE platform / technology while the new WAM platform / technology is being designed, built, and implemented - Organization impact is significant as ~6,800 users have to migrate from Passport to Maximo



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #6 (Page 1 of 2)

Scenario #6: PTT Scope - Process and Technology Transformation (SAP)

Scope Definition	<ul style="list-style-type: none">- All process changes associated with PTT waves 1 and 2 scope (incl. finance)- Standardize finance, WAM, scheduling & mobility and supply chain on SAP
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Cost Profile (Cash View)		
O&M	Capital	Total
\$77	\$254	\$331



PTT Scenario Analysis

Detailed Scenario Analysis

Scenario #6 (Page 2 of 2)

Scenario #6: PTT Scope - Process and Technology Transformation (SAP)

Risks	<ul style="list-style-type: none"> - While the new SAP platform / technology is being designed, built, and implemented, legacy platforms / technology remain unsupported and at risk for significant operational / system failure - If finance functionality is consolidated before WAM functionality, there is a risk of a “double touch” on the legacy WAM platforms / technology to ensure legacy WAM platforms / technology align with new SAP finance functionality while the new WAM functionality is being designed, built, and implemented - Implementation risk is significant with all lines of business and jurisdictions in scope for the WAM and JDE consolidations
Pros	<ul style="list-style-type: none"> - Addresses / mitigates long-term technical / system operational risk of both the JDE and WAM platforms / technology - Reduces potential need for future investment to consolidate legacy platforms (NOTE: will require ongoing maintenance support investment – similar to all other scenarios) - Simplifies the overall technology environment – significantly reduces integration complexity, improves data integration, and addresses standards disparity – most closely aligns with IT strategic direction and roadmap - Introduces system controls into the environment which will help support process changes - Provides the system configuration and infrastructure to support a mobility capability and achievement of mobility benefits
Cons	<ul style="list-style-type: none"> - Legacy systems remain technically / support non-compliant while new platforms are being designs, built, and implemented - May require complex integration between legacy WAM platform / technology and new finance functionality while the new WAM platform / technology is being designed, built, and implemented - Organization impact is most significant as all users will have to migrate from current platforms to SAP



PTT Scenario Analysis

Cost Estimating Approach

	Component	Estimating Approach	
		Current Software Technical Upgrades / Ongoing Maintenance	JDE and Maximo Consolidations / Process Design
Implementation	Build Costs / Upgrade Costs (Labor/PM/Conversion)	Historical gathered estimates, reviewed by management team	Preliminary scoping with a “top down” estimate using Accenture’s estimating models; validation against Rec Phase estimates
	Change Management / Communications / User Training	% of upgrade cost	% of build cost
	Software Licenses	Current license cost	Current license cost
	Hardware / Hosting / Infrastructure	Current hosting cost	Current hosting cost
	Transition to Sustainment (IT)	No incremental costs	Rec Phase estimates
Ongoing (Annual)	Software Maintenance	Historical including annual estimated increases	20% of license costs with a 4% year over year increase
	Application / Environment Support	Current support costs	% of current application support with a factor for increased support requirements
	Other Ongoing Costs	Historical server costs including server replacement every 5 years	Historical server costs with a factor for increase based on scale

