



**PARCA
EVM**

CPIC Webinar

Right Sizing Earned Value Management for Your Project

Mr. Gordon Kranz
PARCA Earned Value Management

December 4, 2013



PARCA EVM

Framing the Webinar

► *Topics:*

- What is the purpose of Integrated Program Management?
- Evaluation of how different kinds or programs / contracts track progress
- Earned Value Management collection of progress independent of resources consumed
- Example to discuss the different kinds of programs



**PARCA
EVM**

What is the purpose of integrated program management

- ▶ Understand progress of program/contract.
- ▶ Understand performance vs plan vs actuals to estimate adjust plan and project end costs and schedule dates.
- ▶ Etc.



PARCA EVM

Evaluation of different kinds of programs/contracts

- ▶ System Development – System, Hardware, and Software design, build, test, deliver.
- ▶ Software Development in support of Enterprise Systems – Existing system in place, incremental software build, test, deploy.
- ▶ Services – Procure X number of staff hours over y amount of time, no clear deliverables.
- ▶ Purchase Orders – Procurement of an off-the shelf item.



System Development

- ▶ Understand progress of program/contract.
 - Statement of Work, Capability descriptions, performance characteristics, interim deliverables, final deliverables etc.

- ▶ Understand performance vs plan vs actuals to estimate adjust plan and project end costs and schedule dates
 - Use measures to assess progress, identify areas of future plan to adjust, adjust forecasted plans, end cost and end time of delivery
 - Earned Value Management, Technical Performance Measures, Risk Mgt, etc.



Software Development in Support of Enterprise Systems

- ▶ Understand progress of program/contract.
 - List of desired capabilities (Plateau, Epic, ?), Tier 0 plan establishing goal for incremental builds (Sprints?), capabilities delivered each build (Sprint).

- ▶ Understand performance vs plan vs actuals to estimate adjust plan and project end costs and schedule dates.
 - How many capabilities were deployed vice planned. Are capabilities not done still needed?, If so which build (sprint),
 - Project resource estimates for next build (sprint) based on actual from pervious builds.



PARCA EVM

Services

- ▶ Understand progress of program/contract.
 - Technical resources to perform diagnostics on an operational satellite
 - Understand actuals vice amount contracted.

- ▶ Understand performance vs plan vs actuals to estimate adjust plan and project end costs and schedule dates.
 - Plan is typically a time phased budget for resource consumption, no specific end items defined, only set of services expected. Comparing actuals to plan to understand when fixed amount of resources are consumed
 - Description of actual work done



Purchase Orders

- ▶ Understand progress of program/contract.
 - Typical purchases orders are for existing off the self items such as software applications and licenses, hardware, other
 - i.e. (x printers, y software licenses, etc)

- ▶ Understand performance vs plan vs actuals to estimate adjust plan and project end costs and schedule dates.
 - Catalog price is understood up front, expected deliver dates are specified. Track progress against actual deliveries.
 - If deliveries do not make plan you adjust the receivers plans accordingly



PARCA EVM

Disciplined collection of progress

- ▶ Earned Value
 - Performance is taken independent of resources expended

- ▶ Agile SW development
 - Performance is taken based on deployed capabilities independent of resources expended

- ▶ Services
 - Performance is taken based on resources expended and general description of work done



EVM / Agile Progress Measurement

- ▶ Understand the work scope
- ▶ Develop a plan to resource and time phase the work scope execution (baseline)
- ▶ Define clear completion criteria
- ▶ Measure progress against the plan (baseline), independent of resources expended.
- ▶ Assess progress against completion criteria and update plan accordingly



Example Scenario

- ▶ Customer Desire: Move to upper mid west where there are 4 seasons, great fishing, golf, and winter sporting such as snowmobiling and visit a **classic southern country music landmark** along the way.

- ▶ Traditional Requirements and Implementation process
 - Identify and research all of the upper mid west locations that meet the stated requirement and classic southern country music landmarks that are reasonably on the way.
 - Perform a trade analysis and select a move destination and a landmark that best meets customer's stated requirements.
 - Implement Plan



Example Scenario

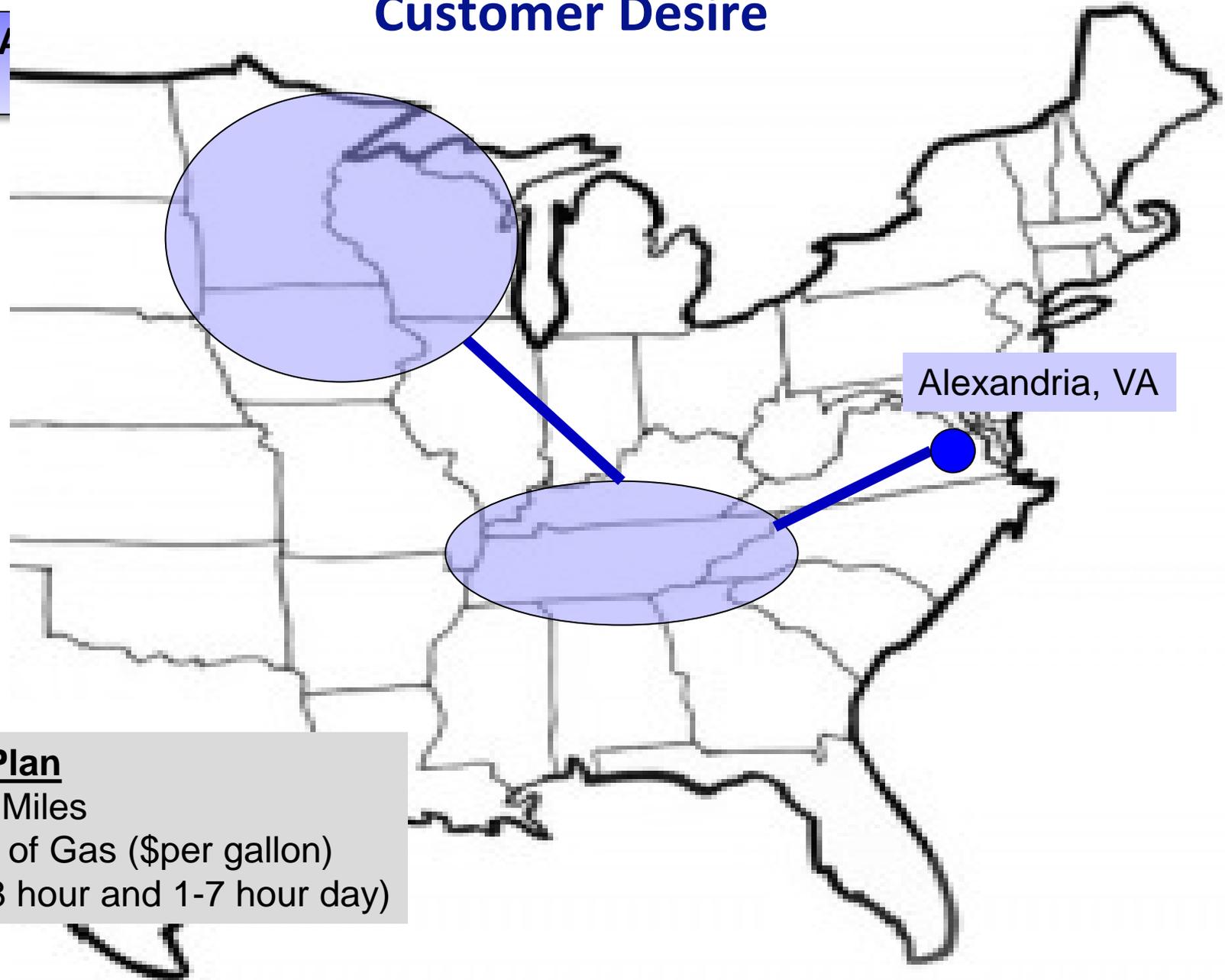
- ▶ Customer Desire: Move to upper mid west where there are 4 seasons, great fishing, golf, and winter sporting such as snowmobiling and visit a **classic southern country music landmark** along the way.

- ▶ Agile Requirements and Implementation process
 - Evaluate customer desire and notionally and time phase into a set of Epics.
 - Select a subset of the requirements within an Epic for implementation in a sprint.
 - Revisit Customer requirements based on results of each sprint; continue until customer satisfied, understanding that original stated requirement may not be where the customer ends up .



PA

Customer Desire



Alexandria, VA

Baseline Plan

1535 Total Miles

76 Gallons of Gas (\$per gallon)

4 days (3-8 hour and 1-7 hour day)



Traditional Development Approach using EV

Minneapolis, MN

Hannibal, MO

Nashville, TN

Kingsport, TN

Alexandria, VA

Baseline Plan

1550 Total Miles

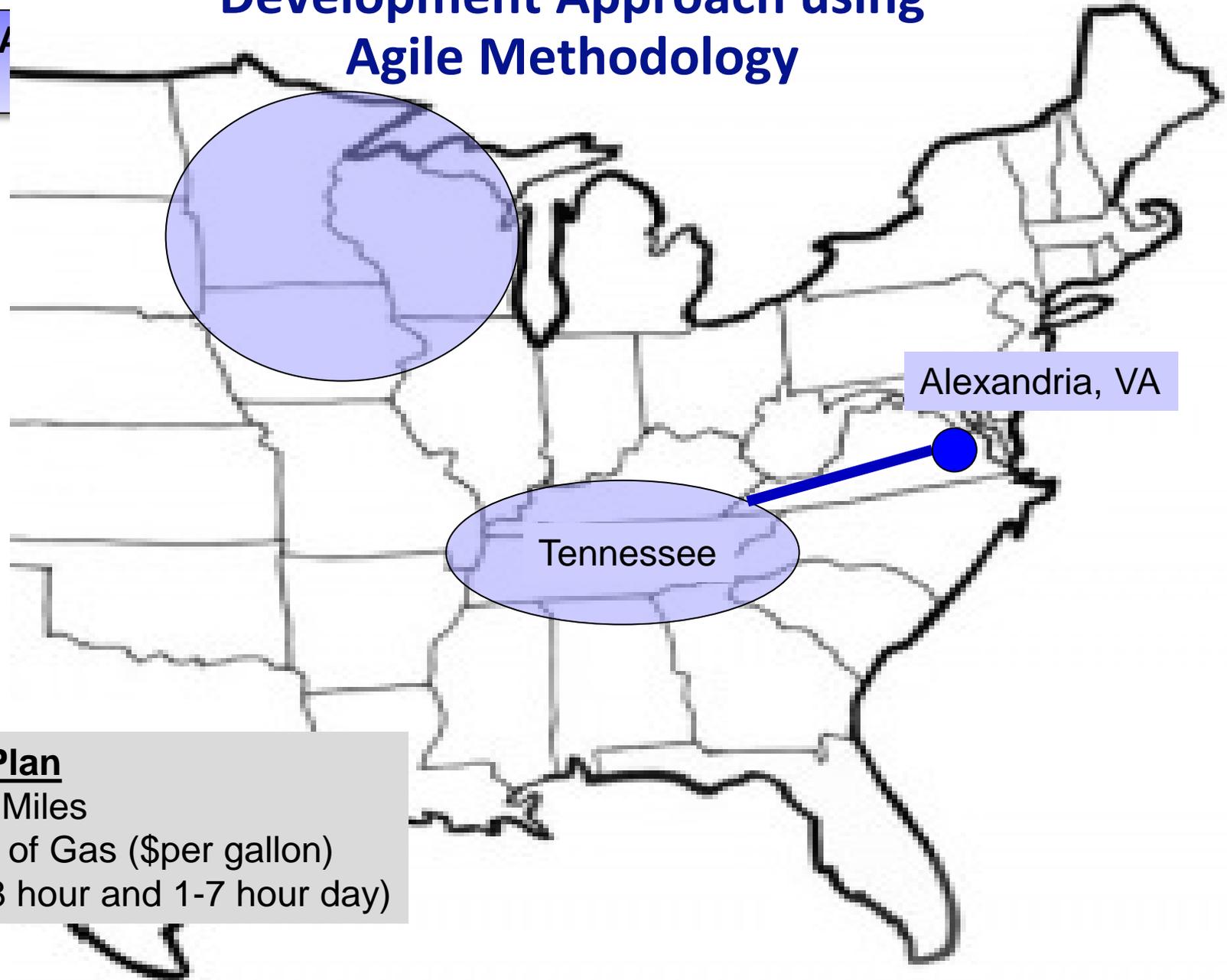
77 Gallons of Gas * \$3.499 per gallon) = \$270

4 days travel days 1 day stay in Nashville

Development Approach using Agile Methodology



PA



Baseline Plan

1535 Total Miles

76 Gallons of Gas (\$per gallon)

4 days (3-8 hour and 1-7 hour day)

Development Approach using Agile Methodology



Sprint 1 Status

Got to Knoxville
Reconsidered options
Selects Memphis instead of Nashville

Sprint 2

Get to Memphis
22 Gallons of Gas
1 Day



**PARCA
EVM**

QUESTIONS??