

Applying CMMI-SVC Process Areas to CMMI-DEV Projects

M. Lynn Penn
Director Process Management
Integrated Systems & Global Solutions
Lockheed Martin Corporation
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TO INFINITY AND BEYOND



Topics for Discussion

- Why look Beyond Development?
- Sampling of Specific Service Process Areas that enhance the Engineering Process Areas
- Benefits of Service PAs to Development Projects

WHY????

- Expectations of the product being developed
 - Sustainment expected
 - Maintenance phase expected
 - Product Warranties
 - User Training
 - Technology Refresh

Product Development has evolved to a Service System

Process Areas to Choose

- ALA Carte Menu, Please



Service Process Areas

- Service System Transition (SST)
- Service Continuity (SCON)
- Capacity and Availability Management (CAM)

ONLY A SAMPLE – OTHERS MAY APPLY
ACQ PAs if product has a large amount of suppliers

Product Integration

- Goal coverage
 - Prepare / Ensure Interface Compatibility/ Assemble and Deliver

... Then WHAT?

- How can the components be modified/ added/ updating while maintaining the functionality of the whole?

... The Answer is

Service System Transition

- Goal coverage
 - Prepare/ Deploy
- Prepare for transition
 - Gives the development team guidance on methodically improving the product (above and beyond initial delivery) with new or improved functionality, while considering and managing the impact
- Planning of the transition coupled with product integration engineering provides both the producer and the ultimate customer with the confidence that a trusted system will CONTINUE to operate effectively as the context changes

Service Continuity

- Fills an obvious “gap” in product development
 - Continuity of “services” associated with sustainment
 - Additionally – continuity of the system itself – “System Continuity”
- Plan for system component failures while maintaining the critical functions of the overall system

Risk Management

- Core Process Area
 - In both Dev and SVC

What about system functionality – versus cost
schedule – development?

What about sustainment/ maintenance resources?

- Enhance to include minimizing a component failure
 - Mitigate the risk of losing critical functionality

Capacity and Availability

- Development Tool
 - Translate “resources” into component and system functionality
 - Test Engineers
 - Use to monitor that the functions/ components are present and operating when needed
 - Critical during Stress and Endurance Tests
- Management Tool
 - Use practices to make sure costs associated with component development and maintenance are within budget

Benefits, Benefits, Benefits...

- Product Integration coupled with Service System Transition
 - Internally – impact awareness for management/ configuration management/ test/ quality
 - Externally – confidence system will continue to operate
- Adding Service Continuity (a.k.a. System Continuity)
 - Customer and users MUST identify those requirements associated with critical functions
 - Test Engineers focus on system failure as well as individual component failures to test for continuous critical functionality
- Risk Management coupled with Capacity and Availability
 - Expands the focus from internal development to external operations
 - Bridges project evolution from production to sustainment

Moral of the story

- Encourage the use of CMMI – SVC as an extension to CMMI- DEV
- Proactively selecting process areas regardless of the constellation to meet customer needs
 - Multi-dimensional view of quality
 - Production and Operational life cycles supported

...And the Walls Come Tumbling Down

