High Velocity Performance Improvement

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Administrivia

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• Who I am:
  – Chief Engineer, Jacobs Technology, Inc./ITSS
  – SCAMPI Lead Appraiser
  – (Lean) Six Sigma Black Belt
  – Certified Scrum Master
  – Member, NDIA Systems Engr Steering Committee
  – Member, NDIA CMMI Working Group
  – Member, CMMI-SVC Advisory Group
  – Visiting Scientist, SEI
What does “High Velocity” Mean?

• Velocity = Speed and direction
  – Speed: improvement speed
  – Direction: Performance and quality objectives

• How high: What makes sense for the business

• Example:
  – Performance Objectives:
    • Negotiated schedules are estimated and met with no more than a 10% variance
    • Financial costs within a 10% variance
    • Customer survey scores of 90+% satisfaction
    • Delivered product and development iterations meet or exceed committed requirements 100% of instances
    • Customer sign off occurring within 1 week after project completion
  – 11 Months to achieve goals and ML3
Impediments to High Velocity

- Lack of focus (objectives, issues, scope, etc.)
- Lack of leadership
- Processes not owned by “doers”
- Immature process culture
- Misunderstanding of CMMI and other approaches
Lack of Focus

• Focus on a Maturity Level
  – Incredible inefficiencies at the Specific Practice level
  – Little or not business context for practice interpretation
  – Little or no idea of “what you want to be when you grow up”

• No or vague objectives for the performance improvement effort

• Insufficient Leadership commitment to achievement of objectives
Lack of Leadership

• This is NOT “Allowing” the organization to improve
  – Resources, personnel, money
  – Some level of process/work product review
  – Support for organizational change
  – Approval and support of process changes

• Direct, active involvement is key
  – Tie effort to real business objectives and issues
  – Be demanding of results in a meaningful time frame
  – Set high level performance and quality goals
  – Get “heroes” and key personnel directly and personally involved

LEADERSHIP is key....
Process Owners not Process Doers

- Levels of removal from process ownership
  - Hire a professional to come in and write your processes (increasingly rare)
  - Form an SEPG of “process people”
    - Buy-in strategies
    - Dealing with “heroes”
    - Mandates for use of processes (!)

- Ownership by process “doers”
  - Charge the “heroes” with leading performance improvement
  - Exactly as intended by Lean Thinking
  - Make performance improvement everyone’s job
Immature Process Culture (indicators)

- Little/no examples of following recorded processes
- QA audit results are buried (or worse)
- Metrics are not collected, or are not accurate
- Project and organizational decision are made “close to the chest”
- Poor communications among team members and across the organization
Misunderstanding of the CMMI

- Required Components = Generic and Specific Goals
- Expected Components = Generic and Specific Practices
  - Write Alternative Practices if the Business Context warrants it
- Information Components: Everything else
  - Select, interpret, and apply in the BUSINESS CONTEXT of the organization or project
What Enables High Velocity?

• Remove impediments:
  – Fanatical focus on objectives
  – Strong, involved leadership
  – Processes owned by “doers”
  – Mature process culture
  – Appreciate the CMMI and other approaches

• Add Lean Thinking/ Agile
  – Lean/agile processes/services
  – Lean/agile performance improvement framework

Lean/Agile process and improvement framework
WORK TOGETHER
Lean/Agile Processes/Services

- Constant focus on customer value
- Waste elimination from processes
- Service or development Iterations
- Potential for synchronization of activities
- Agile Project or Service Management
- Rapid learning (organizational learning)
- Skilled development or service teams
- Lean process/services support rapid improvement
- Process ownership by the process “doer”
- Visualization of process architectures and service outcomes
- Kanban decision making wherever possible
Lean/Agile Performance Improvement Framework

- Benchmark Kaizens
- Value Stream Mapping for initial or improve workflows
  - And basis for technology implementation
- Concurrent/parallel improvement projects
  - Parallel cohesive activities
  - Information flow
- One week to one month process iterations
  - ?What about process stability?
- Agile Improvement Project Management
- Rapid organizational learning (also helps deployment)
QUESTIONS?