Effectively Deploying CMMI In A Large Organization

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Global Quality and Client Satisfaction
Learning Objectives

• Briefly describe Accenture organization

• Describe our process improvement journey using the CMM/CMMI

• Describe our quality program and approach

• Share some success factors in CMMI deployment

• Answer your questions
Accenture (NYSE: ACN)

- Global management consulting and technology services company
- Collaborates with clients to help them realize their visions and create tangible value
- With more than 80,000 people in 47 countries, we can quickly mobilize the right people, skills, alliances, tools and technologies to deliver innovation
- Integrates consulting and outsourcing services to help clients:
  - Identify critical areas with potential for maximum business impact
  - Innovate and transform the processes in those areas
  - Deliver performance improvements and lower operating costs by assuming responsibility for certain business functions or areas
- We serve 89 of the Fortune Global 100 and more than two-thirds of the Fortune Global 500.
- More than 90 percent of our top 100 clients in fiscal year 2002 have been clients for the past five years, and more than 60 percent have been clients for at least 10 years.
Market-facing Structure

Comm. & High Tech  Financial Services  Government  Products  Resources

Business Consulting Capability Group—Service Lines and BPO Businesses
Technology & Outsourcing Capability Group—Service Lines and BPO Businesses
Affiliated Companies

Global Strategic Delivery Approach
Alliances
USA Government Operating Unit

• Over 3,000 deployed personnel

• Serves federal, State and Local clients
  – Industry expertise includes Defense, Postal, Education, Health and Human Services, Revenue and Customs, Immigration, Justice, and Security

• Products and services include consulting and outsourcing:
  – Custom and packaged solutions (SAP, PeopleSoft, Siebel, Oracle, etc)
  – Business process outsourcing (human resources, voter registration, application management, etc)

• Geographically dispersed across USA
Process Improvement Journey

- Initial
  - Process unpredictable, poorly controlled and reactive

- Managed
  - Process characterized for projects and is often reactive

- Defined
  - Process characterized for the organization
  - May 2002: Achieved CMMI Level 3 for USA Government OU (Federal, East, West, AGC)
  - October 2000: Achieved Level 3 for Federal Client Group

- Quantitatively Managed
  - Process measured and statistically controlled
  - Jan 2000: Achieved CMM Level 2 for Federal Client Group

- Optimizing
  - Emphasis on continuous improvement
  - FY’04 Level 4 Appraisal
Quality Program Overview

In order to be sustainable, a Quality Program must be driven by, and should address, business objectives.

Drivers

- Changing Client Expectations
- Business Value

KEY

Objectives
Enablers
### CMMI (SW/ SE/ IPPD) as Framework for Process Improvement

<table>
<thead>
<tr>
<th><strong>Maturity Level</strong></th>
<th><strong>Process Areas</strong></th>
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</thead>
<tbody>
<tr>
<td>5 Optimizing</td>
<td>• Organization Innovation and Deployment</td>
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<td>• Causal Analysis and Resolution</td>
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<td>4 Quantitatively Managed</td>
<td>• Organization Process Performance</td>
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<td></td>
<td>• Quantitative Project Management</td>
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<td>3 Defined</td>
<td>• Requirements Development</td>
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<td>• Technical Solution</td>
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<td>• Verification</td>
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<td>• Validation</td>
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<tr>
<td>2 Managed</td>
<td>• Requirements Management</td>
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<td>• Project Planning</td>
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<td>• Project Monitoring &amp; Control</td>
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<td>• Supplier Agreement Management</td>
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<tr>
<td>1 Initial</td>
<td>• No Process Areas</td>
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CMMI Implementation Approach

Quality Implementation Time Line

Start Date

Target Date

- Establish Quality Program
- Manage Quality Program
- Establish Communication and Sponsorship
- Establish Process Definition/Training
- Pilot
  - Define approach and identify participating projects
  - Provide process support and training
  - Measure process usage and report to sponsor
- Baseline Processes/Training
- Deploy to Organization
- Implement Process Improvements
- Measure CMMI Progress With Appraisals
  - Mini-Appraisal
  - Formal Appraisal

Iterate this approach for achieving each target CMMI level
People Enablement equips Accenture's people with high impact learning and knowledge assets, solution delivery tools, and capability development services to help them succeed in delivering value, while continuously growing their own professional capabilities.
Applying CMMI - Project Management at Accenture

Plan Project Execution
- Tailoring Processes (Guidelines and Process Improvement Liaisons)
- Develop Project Plans (Metrics, DAR, Mission, Vision, Lifecycle)
- Develop Subordinate Plan (CM, Risk, SubContractor, Communication, Sponsorship)
- Developing Estimates and Assumptions

Organize Project Resources
- Establish Standards and Procedures
- Establish Teaming Structure
- Train Project Team Members
- Obtain Other Resources (Hardware, Software, Facilities, Subcontractors)

Control Project
- Measure and Manage Performance (Metrics, Corrective Action, Decision Making)
- Communicate Project Status (CM Audits, Status Reports)
- Update Plans
- Obtain Deliverable Acceptance

Complete Project
- Obtain Formal Acceptance of Deliverables
- Finalize Documentation
- Evaluate Project (Profiling Data, Metrics, KX Submissions)
Applying CMMI - Engineering at Accenture

Analysis
- Define Business Case
- Requirements Gathering & Analysis (Identify Risks, Define User/Business Requirements, Conduct Conference Room Pilot)
- Assess Deployment Environment
- Identify and Analyze Application/Interface Requirements (RTM)

Design
- Design Technology Infrastructure (Review Technical Requirements, Select and Design Architectures)
- Design Application (Architecture, Databases, Plan Testing Approach, Design Performance Support Approach, Fit Analysis)

Build & Test
- Build and Test Technology Infrastructure (Acquire Assets and Services, Build and Test Architectures)
- Build and Test Application (Deployment Planning, Detail Design, Execute Test, Develop Policies & Procedures, Develop Learning Products)
- Plan & Execute Product Test and User Acceptance Test

Deployment
- Transition Users and Deploy Policies and Procedures
- Deploy Physical Environment
- Deploy Application
- Deploy Technology Infrastructure
Success Factors – Communication and Sponsorship

Acceptance

Way of Life

Commitment

Acceptance

Understanding

Awareness

Initial Contact

“In their eyes”
INFORM

“In their mind”
CLARIFY

“In their heart”
CONVINCE

“In their Work”
INVOLVE

Acceptance

Understanding

Awareness

Initial Contact
Common Challenges in Sustaining Change

Can’t (Ability)
- Lack Knowledge
- Lack Skill
- Lack Aptitude

Causes

Won’t (Motivation)
- Lack of Motive
- Attitude and Values
Communications Guiding Principles

A well-planned and executed communication process should result in stakeholder acceptance, involvement and readiness.

- Communicate the right information to the right audience at the right time.
- Anticipate questions when developing communications.
- Avoid information overload; “less is more”.
- Manage expectations; “under promise, over deliver”.
- Be consistent with organization’s core values.
Success Factors – Leadership Commitment

To initiate and sustain change five roles are critical:

- **Initiating Sponsor**: initiate change
- **Sustaining Sponsor**: legitimize change
- **Change Agent**: implement change
- **Target**: actually change

Advocate

Want change but do not have the power to legitimize it
Common Challenges in Obtaining Commitment

- Cost (initial investment)
- Length of payback
- Hardware culture
- Software culture
- Time to market is king

Source: The ROI for Software Quality, El Amam 2003
## Success Factors – The Right Change Agents

A high performing team that coordinates process improvement efforts across the organization using proven best practices, tools, and processes based on the CMMI℠

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<tr>
<th>Rollout</th>
<th>Process Improvement</th>
<th>Workforce Performance</th>
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<tr>
<td>• Serve as CMMI Subject Matter Experts by providing coaching and interpretation to projects</td>
<td>• Establish CMMI-related best practices, processes and tools</td>
<td>• Develop, maintain and administer process training for the organization</td>
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<tr>
<td>• Conduct CMMI Compliance (Best Practice) reviews of projects’ processes</td>
<td>• Develop and Maintain standard methodology</td>
<td>• Implement Quality communication plan to the organization</td>
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<tr>
<td>• Conduct Independent review of projects’ work products</td>
<td>• Support Mini-Appraisals and Organizational Assessments</td>
<td>• Develop Quality job aides and reference materials</td>
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<td>• Harvest best practices from projects to share with others</td>
<td>• Develop, collect, analyze and administer metrics program</td>
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</table>
Deployment Approach

Identification & Conduct Kickoff

Conduct Training

Conduct Best Practice Reviews
- Review Project Documentation
- Mentor & Partner with Project Team

Close-out Project

Policy

Benefits

- Knowledge transfer
- Functional support
- Communication channel between project and site personnel
- Consistency across sites
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