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Strategies for Transitioning to CMMI-SVC

CMMI Technology Conference and User Group
16-19 November 2009

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Topics

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- **The Business Case for Adopting CMMI-SVC**
- **Terminology**
- **Staged or Continuous**
- **Focus on Work Products or Practices**
- **Building Buy-In**

Related Presentations at this Conference

- “Lessons Learned Piloting the CMMI for Services,” Diane Mizukami (Williams), Northrop Grumman Corporation

What Does the CMMI-SVC Model Provide?

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- "The CMMI-SVC model provides guidance for the application of CMMI best practices by the service provider organization. Best practices in the model focus on activities for providing quality services to the customer and end users." *– CMMI for Services, v1.2*

Project Management
- Requirements Management
- Project Planning
- Project Monitoring and Control
- Supplier Agreement Management
- Integrated Project Management
- Risk Management
- Quantitative Project Management

Support
- Configuration Management
- Process and Product Quality Assurance
- Measurement and Analysis
- Decision Analysis and Resolution
- Causal Analysis and Resolution

Process Management
- Organizational Process Focus
- Organizational Process Definition
- Organizational Training
- Organizational Process Performance
- Organizational Innovation and Deployment

Services
- Service Delivery
- Capacity & Availability Management
- Incident Resolution & Prevention
- Service System Transition
- Service Continuity
- Service System Development
- Strategic Service Management

The Business Case for Adopting CMMI-SVC

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- **Best-practices models provide value by serving as a benchmark**
  - Assessing against the model shows you where you stand against your competitors
  - Learning the model helps you organization understand practices recognized as value by other organizations
  - Adopting the model provides a structured approach for adopting these proven practices consistently across your organization
  - Obtaining a maturity level provides a method of explaining your capabilities to your customers against an industry-accepted benchmark
- **Although the CMMI-SVC model is too new for its impact to be proven quantitatively…**
  - It shares many common components with CMMI-DEV, which has a proven history of success
  - Many industry service leaders contributed to its development

7 New Process Areas

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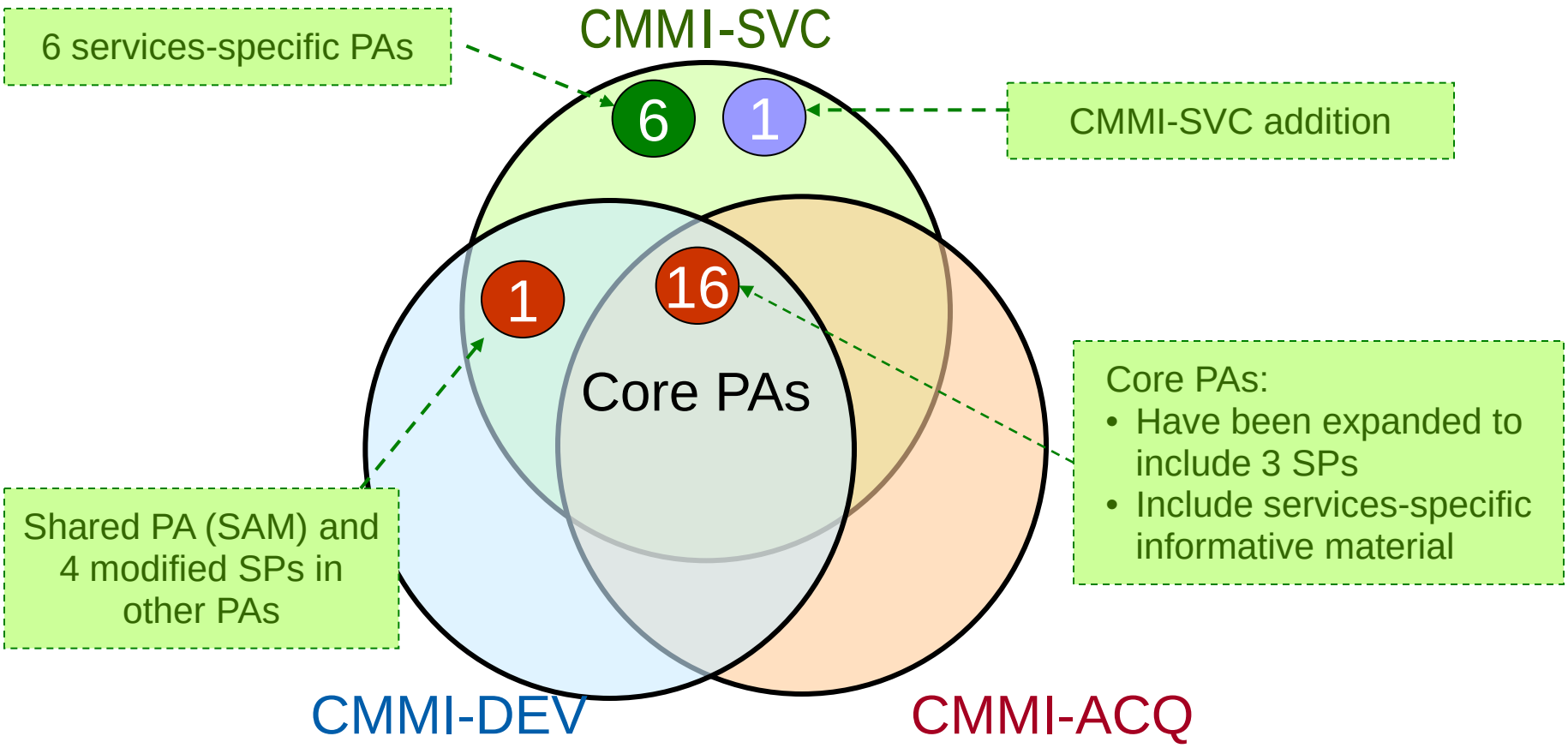
CMMI for Services Constellation = 23 PAs + 1 Optional PA



New Terms – Service, Service System, Project

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- **Service** – *an intangible, non-storable product (e.g., operations, maintenance, logistics, and IT)*
  - Services imply on-going relationships with customers governed by service agreements
- **Service system** – *an integrated and interdependent combination of component resources that satisfies service requirements*
  - Everything required for service delivery (e. g., work products, processes, facilities, tools, consumables, and human resources)
- **Project** – *a managed set of interrelated resources that delivers one or more products or services to a customer or end user. ~~A project has a definite beginning (i.e., project startup) and typically operates according to a plan.~~*
  - "Project" must be interpreted to encompass all of the resources required to satisfy a service agreement with a customer

How Deep to Apply the Model?

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- **Most service projects offer a variety of services and sub-services**
  - Planned and unplanned
  - Typical and “as directed”
- **In applying the CMMI-SVC practices, the scope and depth of application must be considered**

Example

- Will the service agreement include unplanned sub-services?
- Will the organization’s service catalog include unplanned sub-services?
- Will policies and processes be developed for unplanned sub-services?
- Will capacity and availability be computed for unplanned sub-services?
- Will the service system design encompass unplanned sub-services?

Which Improvement Approach: Staged or Continuous?

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	Project Management	*Process Management*	*Service Establishment and Delivery*	*Support*
ML5		Organizational Innovation and Deployment (OID)		Causal Analysis and Resolution (CAR)
ML4	Quantitative Project Management (QPM)	Organizational Process Performance (OPP)		
ML3	Integrated Project Management (IPM) Risk Management (RSKM) Capacity and Availability Management (CAM) Service Continuity (SCON)	Organizational Process Definition (OPD) Organizational Process Focus (OPF) Organizational Training (OT)	Incident Resolution and Prevention (IRP) Service System Transition (SST) Strategic Service Management (STSM) Service System Development (SSD)	Decision Analysis and Resolution (DAR)
ML2	Requirements Management (REQM) Project Planning (PP) Project Monitoring and Control (PMC) Supplier Agreement Management (SAM)		Service Delivery (SD)	Configuration Management (CM) Process and Product Quality Assurance (PPQA) Measurement and Analysis (MA)

A Staged Improvement Approach Reflects the Typical Order Needed for Sustained Performance

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ML2	Requirements Management (REQM) Project Planning (PP) Project Monitoring and Control (PMC) Supplier Agreement Management (SAM)	**Each ML stage builds on the practices below it**	Service Delivery (SD)	Configuration Management (CM) Process and Product Quality Assurance (PPQA) Measurement and Analysis (MA)

A Project Or Organization Might Explore Potential Value of the Service Process Areas First

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	Project Management	*Process Management*	*Service Establishment and Delivery*	*Support*
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ML2	Requirements Management (REQM) Project Planning (PP) Project Monitoring and Control (PMC) Supplier Agreement Management (SAM)		Service Delivery (SD) **Process areas unique to this model**	Configuration Management (CM) Process and Product Quality Assurance (PPQA) Measurement and Analysis (MA)

You Have to Understand the Model to Adopt the Model

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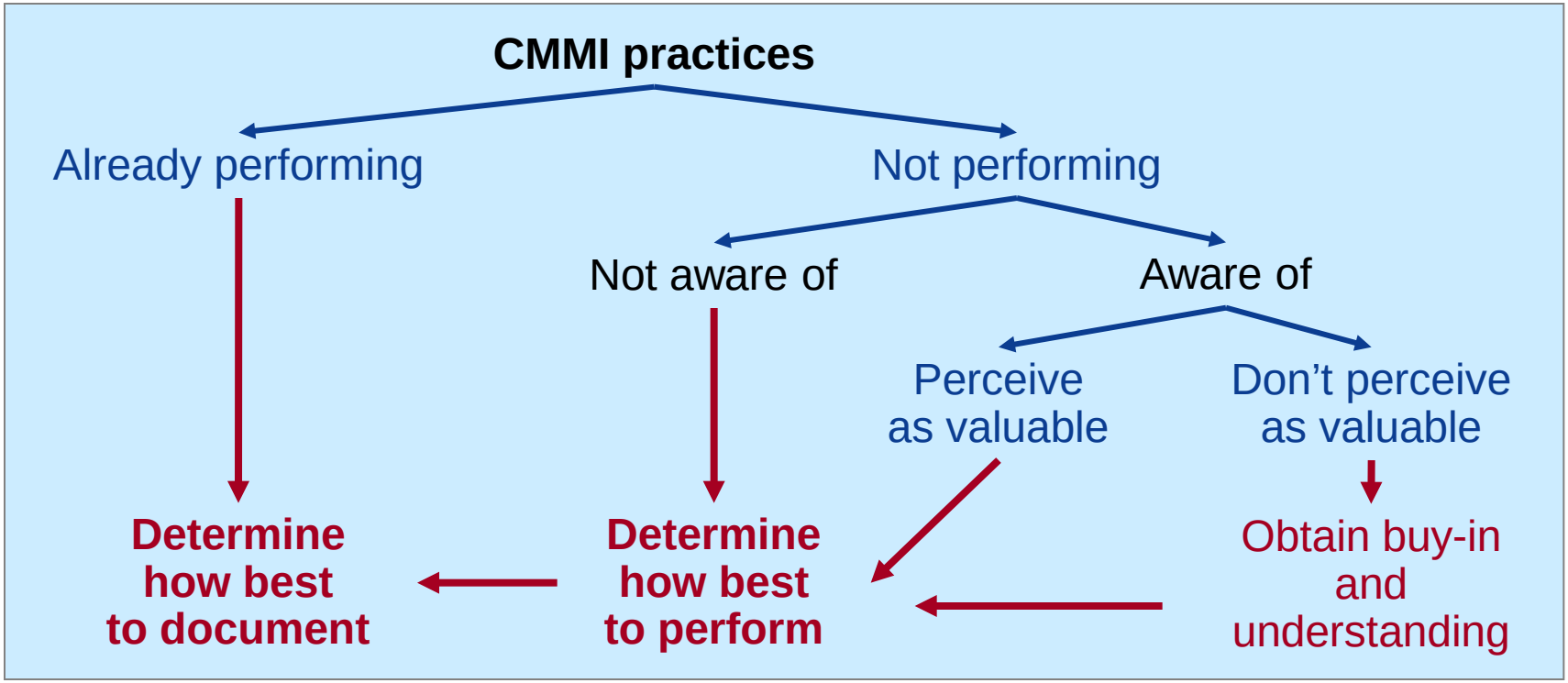
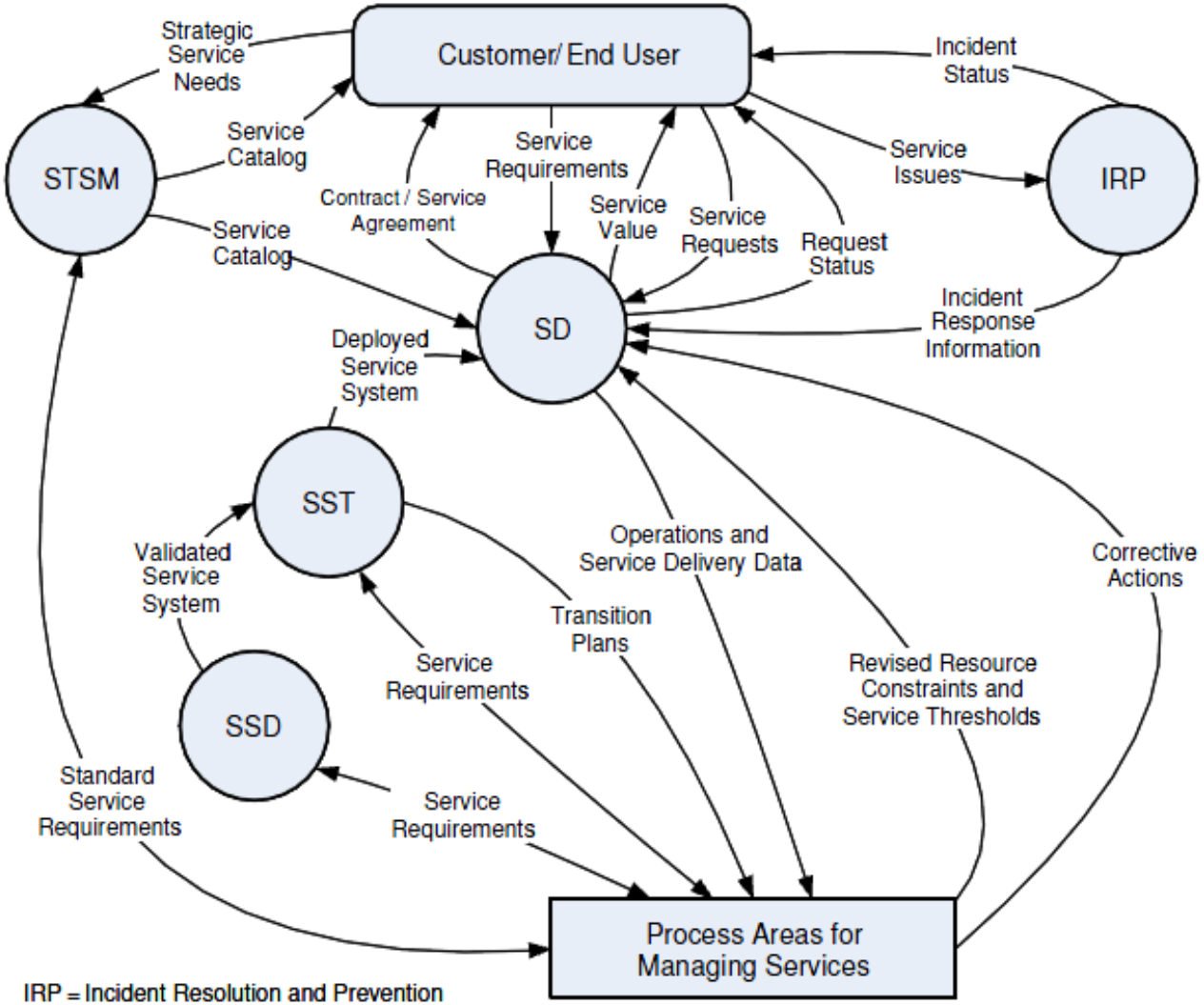


- **Key enablers**
  - Willingness to learn unfamiliar practices
  - Desire to extract value rather than "check the box"
  - Ability to interpret the CMMI in your context
  - Access to experts

Is it Easy to Understand the Practices or the Work Products?



Focusing on identifying/creating the necessary work products may help adopters to better understand the model's expectations

But Don't We Traditionally Focus on the Goals and Practices?

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Service System Development (SSD)

SG 1 Develop and Analyze Stakeholder Requirements

- SP 1.1 Develop Stakeholder Requirements
- SP 1.2 Develop Service System Requirements
- SP 1.3 Analyze and Validate Requirements

SG 2 Develop Service Systems

- SP 2.1 Select Service System Solutions
- SP 2.2 Develop the Design
- SP 2.3 Ensure Interface Compatibility
- SP 2.4 Implement the Service System Design
- SP 2.5 Integrate Service System Components

SG 3 Verify and Validate Service Systems

- SP 3.1 Prepare for Verification and Validation
- SP 3.2 Perform Peer Reviews
- SP 3.3 Verify Selected Service System Components
- SP 3.4 Validate the Service System

GG 2 Institutionalize a Managed Process

- GP 2.1 Establish an Organizational Policy
- GP 2.2 Plan the Process
- GP 2.3 Provide Resources
- GP 2.4 Assign Responsibility
- GP 2.5 Train People
- GP 2.6 Manage Configurations
- GP 2.7 Identify and Involve Relevant Stakeholders
- GP 2.8 Monitor and Control the Process
- GP 2.9 Objectively Evaluate Adherence
- GP 2.10 Review Status with Higher Level Management

GG 3 Institutionalize a Defined Process

- GP 3.1 Establish a Defined Process
- GP 3.2 Collect Improvement Information

A Possible Focus: Key Process Areas for Service Management

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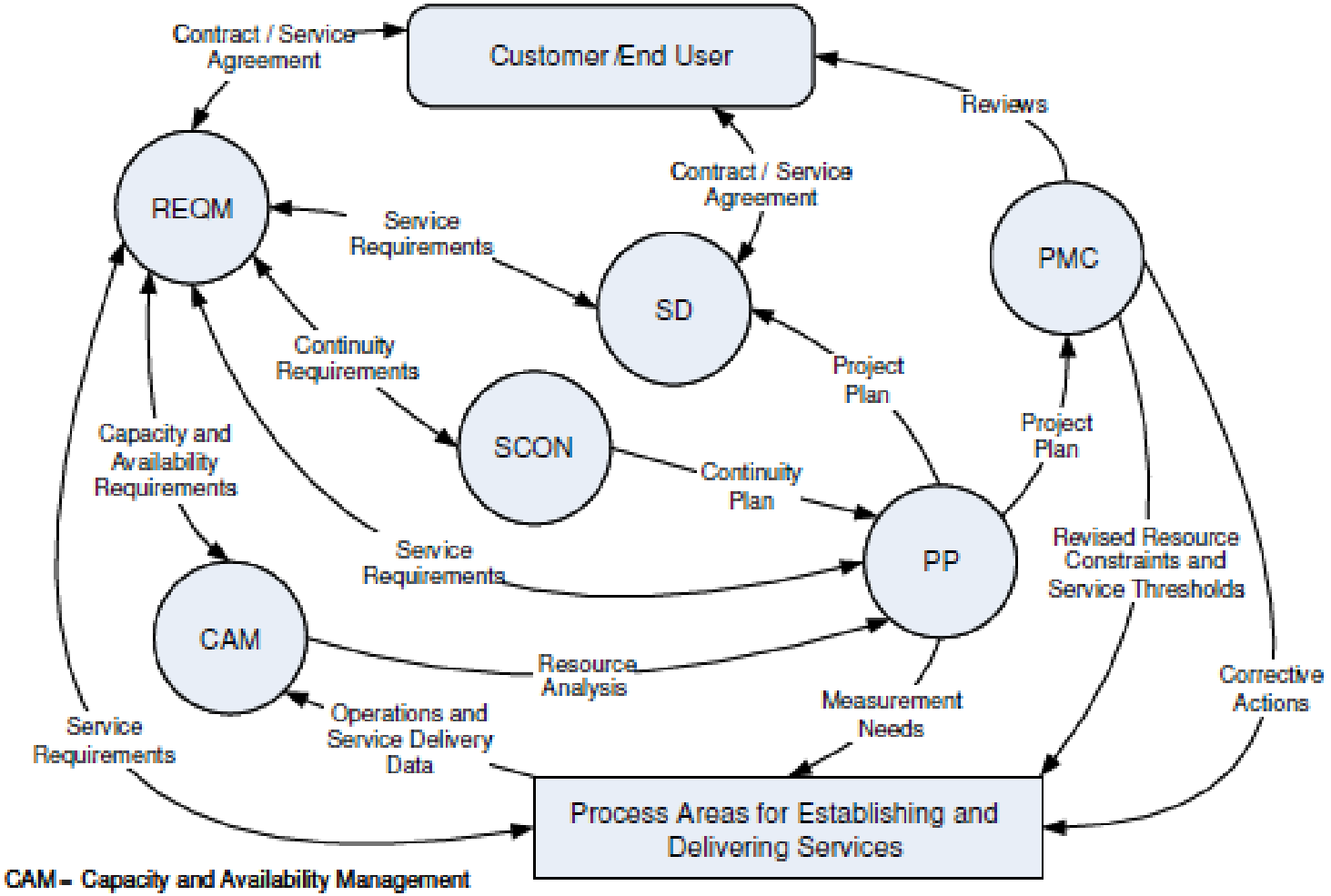

CAM – Capacity and Availability Management
PMC – Project Monitoring and Control
PP – Project Planning
REQM – Requirements Management
SCON – Service Continuity
SD – Service Delivery

Building Buy-In

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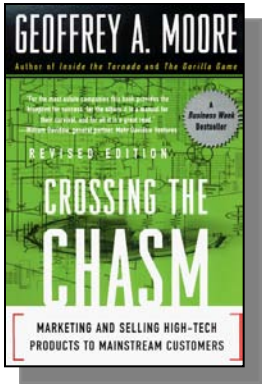
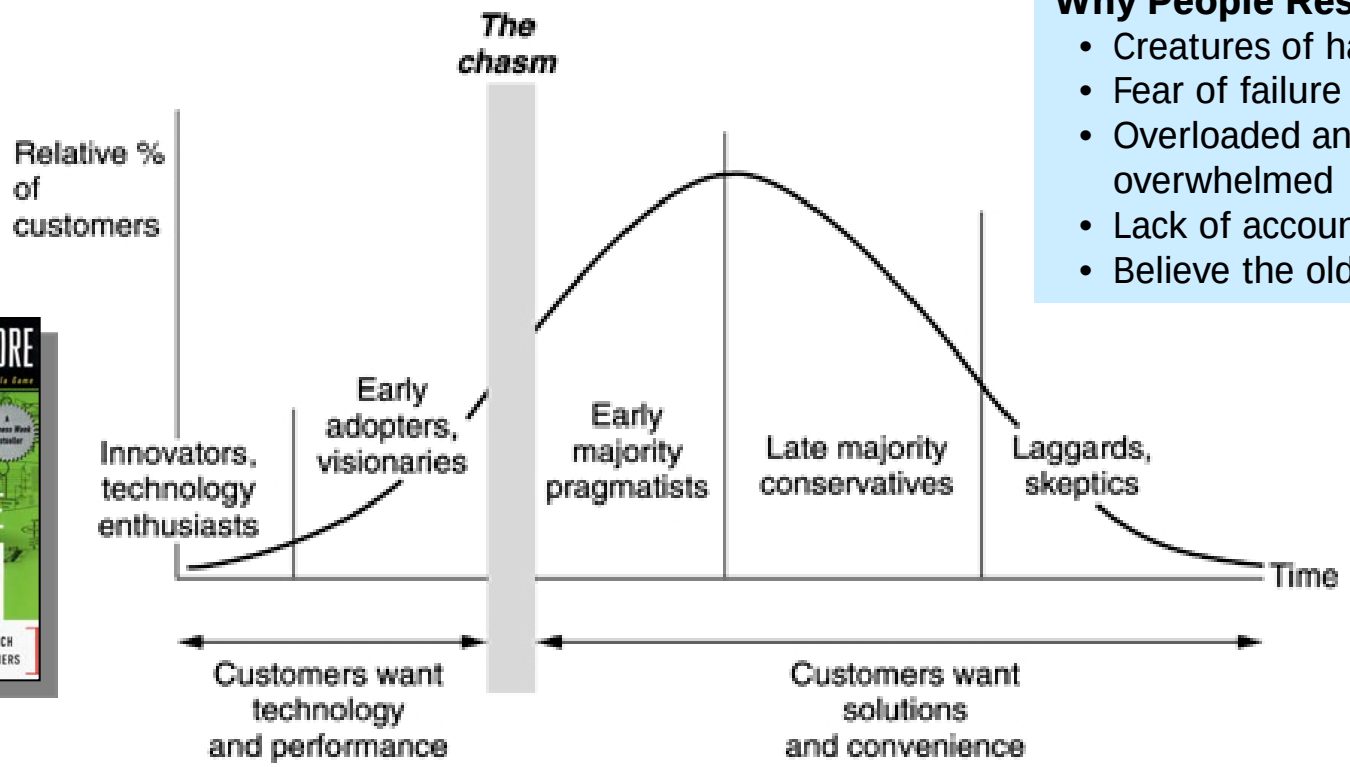
"This is like déjà vu all over again." – Yogi Berra

- **For organizations that have successfully adopted CMMI-DEV, remember that you dealing with ML1 issues again**
  - Why are we adopting this model?
  - Isn't what we're doing good enough? My customer is happy.
  - Prove to me this will work, in my environment, with ROI data, ...
  - What does it mean to me?
- **Service projects offer other challenges**
  - Smaller in size
  - Geographically disperse
  - Rely on unique practitioner skills

Resistance to Change

- **Early adopters are motivated by perceived benefits**
- **Late adopters are motivated by avoiding pain**





Why People Resist Change

- Creatures of habit
- Fear of failure
- Overloaded and overwhelmed
- Lack of accountability
- Believe the old way is better

"Why Can't Johnny Improve?," Rick Hefner, 2007 Software Engineering Process Group Conference

Key Messages that Must be Communicated

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- **CMMI-SVC is a set of proven, industry best-practices**
  - Adoption is about learning how to apply these practices to our work
  - The practices may feel awkward and have limited value until we learn them
  - It's OK to make mistakes – we will get better over time
- **CMMI-SVC involves short-term investment for long-term gain**
  - Achieving and maintaining mature processes is essential to meeting our business goals
- **CMMI-SVC is an enabler (not a guarantee) of project success**
  - Other aspects (people, technology, customer relationship, etc.) are equally important
  - The value is often risk reduction (which may be difficult to measure

Summary

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- **CMMI-SVC provides a new opportunity to improve a critical aspect of our business, and better serve our customers**
- **Successful adoption should examine careful consider possible strategies for transition**
  - The Business Case for Adopting CMMI-SVC
  - Terminology
  - Staged or Continuous
  - Focus on Work Products or Practices
  - Building Buy-In