CMMI for Services (SVC): The Strategic Landscape for Service

Eileen Forrester
CMMI for Services Product Manager

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Services and Strategy

Why Service?
Development, agility, and service
What’s happening with CMMI-SVC now
Regional service strategy and CMMI-SVC
What is the CMMI for Services?

CMMI-SVC guides all types of service providers to establish, manage, and improve services to meet business goals.

Like every CMMI model, CMMI-SVC

• helps to set process improvement goals and priorities, provide guidance for quality processes, and provide a point of reference for appraising current processes

• can be applied internally or externally

• works well with other frameworks

• represents the consensus of thousands of practitioners about the essential elements of service delivery

• can be used in whole or in part
Why is the CMMI-SVC needed?

Service providers deserve a consistent benchmark as a basis for process improvement that is appropriate to the work they do and is based on a proven approach.

- Demand for process improvement in services is likely to grow: services constitute more than 80% of the U.S. and global economy.

- CMMI-SVC addresses the needs of a wide range of service types by focusing on common processes.

- Many existing models are designed for specific services or industries.

- Other existing models do not provide a clear improvement path.

- Poor customer service costs companies $338 billion annually.

- Services constitute more than 54% of what the US DoD acquires.

- SEI stakeholders approached us requesting a model for services.

* FY 2006 data is from “DoD throws light on how it buys services [GCN 2006].” GAO data is from GAO report GAO-07-20.
Why Service at the SEI?
Maybe All Work is Service Work

Knowledge work, such as legal and research

Production, such as engineering and manufacturing

Disciplines and industries, such as education, health care, insurance, utilities, and hospitality

Plus, consider garbage bags and Zipcars and home exchange
What about Software?

“CEOs don’t buy software anymore…they buy service level agreements”

– George Fischer, EVP and Group Executive for CA Technologies, Speaking at NASSCOM and SEPG Asia Pacific 2010
A Quick Look at CMMI-SVC

Service PAs
*CMMI-SVC addition

Core PAs
Include service-specific informative material

Shared PA (SAM)

CMMI-SVC

Define, and Establish, and Deliver Services

Monitor and Control Service and Work Products

Ensure Service Mission Success

Make Work Explicit and Measurable

Manage Decisions, Suppliers, and Standard Services

Create a Culture to Sustain Service Excellence
Are Services Agile?

Perhaps Agile is an attempt to make development more like service. Consider these features of service:

- Ongoing close relationship between provider and user to agree on the product
- Simultaneity
- Coproduction
- Many instances of the work
Software as a Service

“More and more major businesses and industries are being run on software and delivered as online services—from movies to agriculture to national defense.”

“With lower start-up costs and a vastly expanded market for online services, the result is a global economy that for the first time will be fully digitally wired”

## Impact for Organizations

<table>
<thead>
<tr>
<th>Company</th>
<th>Impact Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siemens</td>
<td>Productivity improved by 25% using CMMI over a three-year period</td>
</tr>
<tr>
<td>Raytheon</td>
<td>42% decrease in the costs of rework at CMMI Level 3</td>
</tr>
<tr>
<td>GM</td>
<td>Met milestones improved from 50% to 85% with focus on CMMI</td>
</tr>
<tr>
<td>Lockheed Martin</td>
<td>20% reduction in software costs by integrating its engineering processes using CMMI</td>
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</tbody>
</table>
CMMI-SVC and Early Adoption Results

Managing Quantitatively

Module 10

Managing Quantitatively

Module 10
What are early users saying?

Dramatic returns on investment from early adopters:

- 13.5X income with one CMMI-SVC process area
- 3.5X capacity to deliver service with one CMMI-SVC practice
- Conversion from internal cost center to profit center

Other patterns in early use:

- Combined CMMI-SVC and CMMI-DEV use, with examples of people using CMMI-SVC as their foundation, but adding the engineering PAs for large, complex service systems
- SCAMPI B with security added is plausible
- CMMI-SVC in use for development more than we expected
- High maturity users of CMMI-DEV begin with ML3 of CMMI-SVC when they transition
- More use of CMMI-SVC by process groups to guide their own work
- High demand for multi-constellation use, and of course, multi-model use!
Sample Use Cases (Scenarios) by Industry - 1

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet, computer systems, data processing</td>
<td>20%</td>
</tr>
<tr>
<td>and other related services</td>
<td></td>
</tr>
<tr>
<td>Sales, marketing, management science,</td>
<td>11.8%</td>
</tr>
<tr>
<td>and technical consulting</td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>8.6%</td>
</tr>
<tr>
<td>Arts, entertainment, recreation, and spiritual</td>
<td>8.6%</td>
</tr>
<tr>
<td>Financial, insurance</td>
<td>7.5%</td>
</tr>
<tr>
<td>Healthcare, personal care</td>
<td>7.5%</td>
</tr>
<tr>
<td>Education and training</td>
<td>7.5%</td>
</tr>
<tr>
<td>Transportation and maintenance</td>
<td>6.5%</td>
</tr>
<tr>
<td>Energy</td>
<td>5.4%</td>
</tr>
<tr>
<td>Real estate, household</td>
<td>4.3%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>3.2%</td>
</tr>
<tr>
<td>Travel and tourism</td>
<td>2.2%</td>
</tr>
<tr>
<td>Human resources</td>
<td>2.2%</td>
</tr>
<tr>
<td>Media and telecomm's</td>
<td>2.2%</td>
</tr>
<tr>
<td>Hotel, restaurant, food</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
# Sample Use Cases (Scenarios) by Industry - 2

<table>
<thead>
<tr>
<th>Accounting services</th>
<th>Gutter maintenance</th>
<th>Providing PCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft maintenance</td>
<td>Healthcare</td>
<td>Public health information</td>
</tr>
<tr>
<td>Aluminum packaging manufacturer</td>
<td>Home health care</td>
<td>Publishing</td>
</tr>
<tr>
<td>Ambulatory</td>
<td>Home inspection</td>
<td>Quality assurance</td>
</tr>
<tr>
<td>Auto service</td>
<td>Infrastructure management</td>
<td>Recommending technology</td>
</tr>
<tr>
<td>Auto insurance</td>
<td>Internal process group</td>
<td>Securities investment</td>
</tr>
<tr>
<td>Banking</td>
<td>Internet retail</td>
<td>Software benchmarking service</td>
</tr>
<tr>
<td>Billing</td>
<td>Internet cable provider</td>
<td>Software development</td>
</tr>
<tr>
<td>Call center</td>
<td>ISO audits</td>
<td>Software testing</td>
</tr>
<tr>
<td>Church administration</td>
<td>IT services</td>
<td>Sports officiating</td>
</tr>
<tr>
<td>Client staffing</td>
<td>Letting a holiday home</td>
<td>Staff augmentation</td>
</tr>
<tr>
<td>Database management</td>
<td>Logistics</td>
<td>Stock trading</td>
</tr>
<tr>
<td>Defense contractor</td>
<td>Maintenance</td>
<td>Textiles</td>
</tr>
<tr>
<td>Education</td>
<td>Management consulting</td>
<td>Thermal diagnostics</td>
</tr>
<tr>
<td>Eldercare</td>
<td>Military communications</td>
<td>Training</td>
</tr>
<tr>
<td>Electric generation and supply</td>
<td>support</td>
<td>Training</td>
</tr>
<tr>
<td>Employment</td>
<td>Nuclear power</td>
<td>Training and other aviation services</td>
</tr>
<tr>
<td>Fertilizer manufacturer</td>
<td>Oilfield services</td>
<td>Training and technology</td>
</tr>
<tr>
<td>Fitness club</td>
<td>Organizational performance</td>
<td>deployment for COTS software</td>
</tr>
<tr>
<td>Fitness equipment maintenance</td>
<td>improvement</td>
<td>Translation services</td>
</tr>
<tr>
<td>Food services</td>
<td>Pharmaceutical</td>
<td>Travel agency</td>
</tr>
<tr>
<td>Gardening and lawn care</td>
<td>Process consulting</td>
<td>Travel services</td>
</tr>
<tr>
<td>Genealogy</td>
<td>Project management</td>
<td>University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Voice and data services</td>
</tr>
</tbody>
</table>
Early SCAMPI results - 1

As of October 13, 2011, 132 formal SCAMPIs were reported in SAS. Of these,

- 103 are SCAMPI As, 14 SCAMPI Bs, 15 SCAMPI Cs
- 24% of ML 3+ are using SSD
- 70 appraisals are on SEI’s Published Appraisals Results (PARs) list

This represents 2 years of CMMI-SVC appraisals. For comparison, it took 5 years for the Software CMM to reach 100 appraisals.
Early SCAMPI results - 2

Number of Appraisals by CY Quarter

Percentage of Appraisals by Class

- SCAMPI A: 78%
- SCAMPI B: 11%
- SCAMPI C: 11%

*4Q11 data collection is ongoing
Early SCAMPI results - 3

Percentage of Appraisals by Industry

- Business Services, 38%
- Engineering and Management Services, 33%
- Other Services, 14%
- None Selected, 9%
- Electronic and Other Electric Equipment, 6%
- Transportation, Communication, Electric, Gas and Sanitary Services, 2%
- Finance, Insurance and Real Estate, 1%
- Public Administration (Including Defense), 1%
More indicators of uptake of CMMI-SVC

We have our first ML5 appraisal. This appraisal was also enterprise and multi model.

We see an increase of 24% in CMMI-SVC appraisals quarter over quarter.

More than 160 lead appraisers have been certified.

More than 280 instructors have been certified.

More than 4,300 students have been taught CMMI-SVC.

Qualification for new instructors in Intro to CMMI-SVC continues (153 in queue).

Four qualification classes in US over the past year, two in Asia Pacific, one in Latin America. One in Europe. Next is at Partner Workshop in Minneapolis.

The CMMI-SVC book is available worldwide, and in second edition. Two other books featuring CMMI-SVC by partners are published, a third on its way.

Two masters theses and four doctoral dissertations are complete or ongoing.

Translations of CMMI-SVC into Chinese and Arabic are under way.
Considerations for applying CMMI-SVC

Using the continuous representation is recommended when getting started.

You can get business results with a single practice, a single PA, or another small portion of the model.

Most common PAs to start with: SD, IRP, and CAM.

Discomfort with WP, WMC, and sometimes REQM.

Beware of “service PAs only” attitudes; the core PAs have valuable content for service providers.

It’s not all or nothing!
Achievements in Growing Economies

- **MEXICO**: TSP national initiative
- **COLOMBIA**: 64% Service Economy
- **SOUTH AFRICA**: CMMI and TSP
- **CHINA**: Government incentives
- **JAPAN**: TSP Strategic Partner
- **MALAYSIA**: CMMI and TSP
Strategic Possibilities for Services & Portugal
Portugal’s Service Economy

Service portion of worldwide economy is 80%, also 80% in US

Service sector is Portugal’s largest employer, with 3 of 5 working in service, and 75% of total GDP.

Service challenges and opportunities:

- mismatch of labor and education
- mobile broadband is huge, with little room left for growth; superior service may become the discriminator
- national reform plan calls for competition within service industry

Success story: Portugal was one of least friendly countries to start a business, now one of the best; achieved by a focus on process improvement
Colombia’s Service Economy

Colombia’s economy is 64% service:

Financial: 18.1%

Government, personal, and other: 17.5%

Commerce: 13.4%

Transportation & communication: 7%

Construction & public works: 5%

Utilities: 2.7%
Services and Huntsville

Drivers include: outsourcing, cuts in federal support, disasters, customer retention

Notable services in Huntsville region include:

- Engineering services
- Health care (life sciences and bio tech related and growing)
- Aerospace and defense, including Army and other services
- Technical and scientific research services
- IT services
- Finance
- Academic service
- Government services
- Church and religious
- Telecommunications
It’s All About Focus

The Story of Pittsburgh: From Steel to Education and Health Care Services

CMMI Services Team:
Working this year on health care, education, and insurance segments
Putting All the Pieces Together
CMMI-SVC is a Perfect Fit
What does the CMMI-SVC deliver?

The CMMI-SVC offers a proven approach to

• maintaining competitiveness
• increasing revenue
• improving efficiency

by strengthening service delivery and service management.

• Promotes assured, consistently high-quality service delivery that cements, retains, and increases customer loyalty
• Provides a roadmap for continuous service improvement: benchmark, set goals, prioritize activities, take action, measure progress
• Supports efficiency and reduces complexity through an enterprise-wide common service improvement vocabulary that is critical for multi model use and outsourcing
• Reduces time-to-market (or field) delivery of new services to customers
• Enables the rapid fine-tuning of existing service performance and quality
• Fosters stronger employee motivation and better retention, as they participate in making service coordination and delivery better
• Can be the basis for regional and global strategies, as all work becomes service
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