CMMI for Services

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ASQ Baltimore

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Topics

▲ What's that?

▲ Why?

▲ How do we use it?

▲ Should we switch (or add)?

  ▼ (If we do, what do we need to know?)

Expectations

▲ I'm assuming you know at least a little something about CMMI.

▲ I'm using several SEI slides – on purpose.

▲ By the end of the session, you won't be experts at CMMI-SVC.

▲ What are your questions?

WHAT'S THAT?

What is CMMI for Services?

CMMI-SVC extends the coverage of the CMMI Product Suite to cover the establishment, management, and delivery of services.

Like every CMMI model, CMMI-SVC

- is a process improvement approach that provides organizations with the essential elements of effective processes
- can be used to guide improvement for a team, project, division, or an entire organization
- 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 used to improve services inside an organization or with clients
- represents the consensus of thousands of practitioners about the essential elements of service delivery

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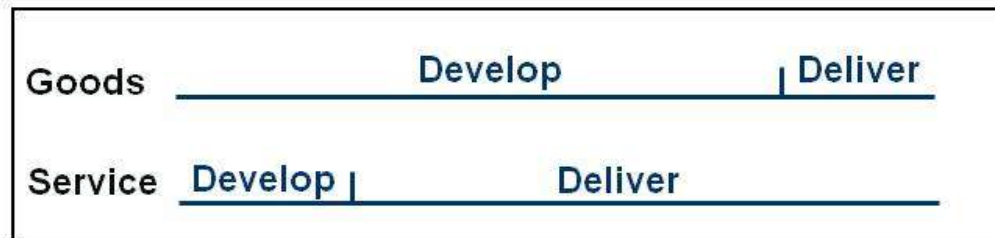# MORE ABOUT CMMI-SVC

What is a Service?

A service is an intangible, non-storable product (e.g., operations, maintenance, logistics, and IT).

Services imply ongoing relationships governed by service agreements.

Services are delivered through the operation of a service system.

Services are often simultaneously produced and consumed.

Services have a different business rhythm than goods.

Goods	Develop	Deliver
Service	Develop	Deliver

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What Types of Services Does CMMI-SVC Cover?

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And more...

CMMI Constellations

A constellation is the subset of the CMMI Product Suite relevant to improvement in a particular area of interest. Currently, there are three constellations:

Development (CMMI-DEV):

- build stuff
- tangible, storable products, made to specification in a lifecycle

Acquisition (CMMI-ACQ):

- buy stuff
- specify, solicit, select, contract, procure, accept, transition to consumer
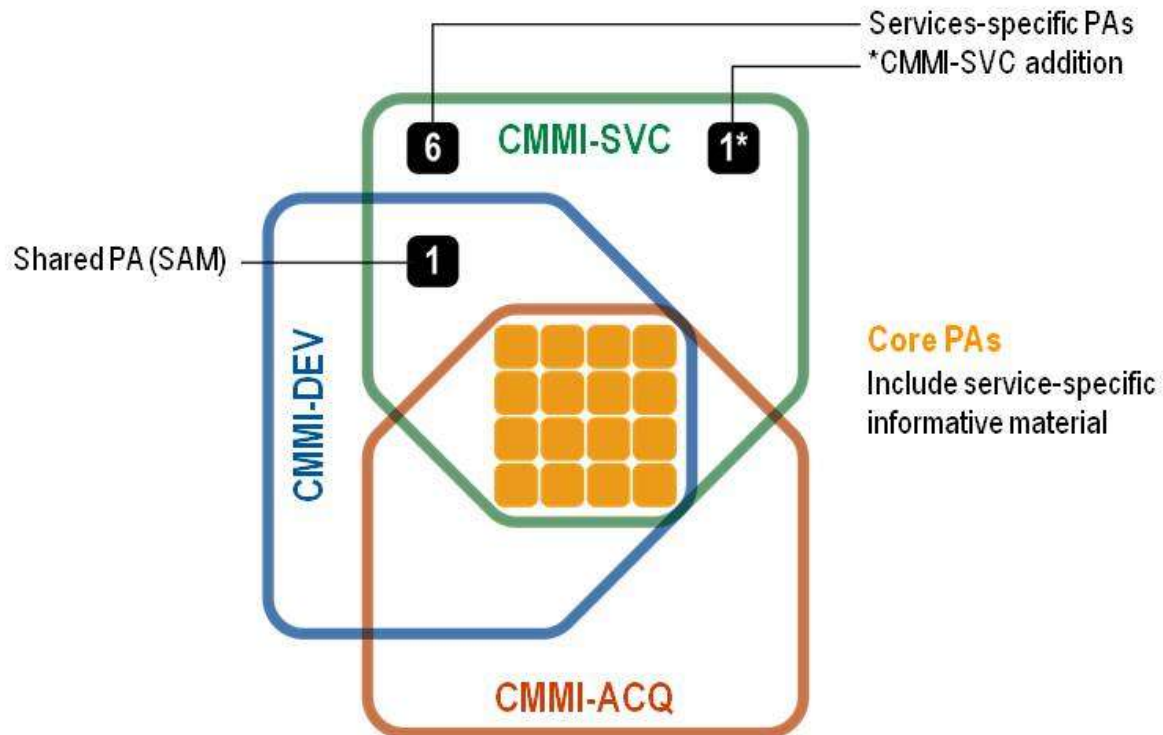
Services (CMMI-SVC):

- do stuff
- intangible, non-storable products delivered via a service system based on explicit or implicit service requests

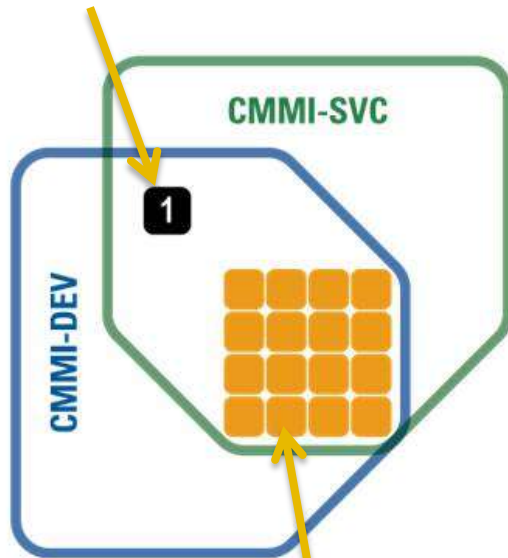Some material adapted from The CMMI Crash Course, ®2005-9 Entinex, Inc.

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Relationships to Other Constellations

Services-specific PAs
*CMMI-SVC addition

6 CMMI-SVC **1***

Shared PA (SAM) — **1**

CMMI-DEV

Core PAs
Include service-specific
informative material

CMMI-ACQ

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OK, NOW WE'RE DONE.

CMMI-SVC Content

22 Process Areas

1 Shared

CMMI-SVC

CMMI-DEV

1

| | Capacity and Availability Management (CAM) | | Incident Resolution & Prevention (IRP) |

16 core

CAM	Capacity and Availability Management
SCON	Service Continuity
STSM	Strategic Service Management
SSD	Service System Development

IRP	Incident Resolution & Prevention
SD	Service Delivery
SST	Service System Transition

7 SVC-Specific

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ENTINEX

What's special about Services that it needs a CMMI?

WHY?

WHY CMMI-SVC?

Why is 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.
- SEI stakeholders approached us requesting a model for services.

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MORE ON "WHY?"

Terminology: Goods vs. Services, Project vs. Work

PA Terminology

- oriented toward "projects" and "goods"
- paradigm (generally) of large-scale development

Project vs. Work

- discrete (CMMI-DEV) vs. amorphous or ambiguous (CMMI-SVC) timelines
- discrete and tangible vs. amorphous or ambiguous "goods"

Aspects of Products

- functions: things the product needs to do
- attributes: characteristics about how it does the things it needs to do; e.g., how fast, how often, how accurately, how reliably
- constraints: conditions that the product may not violate

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THE DIFFERENCES MATTER A LOT

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Differences in Process Improvement Between Services and Development

Services

- Changes are made to the service system, which immediately affects delivery of services to customer.

- Performance of the service system is inseparable from quality of service.

- Feedback from service users to providers is typically direct and rapid.

- Repeated service delivery provides numerous and frequent opportunities to measure.

Development

- Changes are made to development methods and tools, but impacts may not be visible to the customers until later product deliveries.

- The distinction between development process performance and product performance is clear.

- Feedback from product end users to developers is often indirect and slow.

- Longer development cycles provide more limited and less frequent opportunities to measure.

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Summary of Service vs. Development Possible Differences

Services

- no second chances
- attentiveness
- immediacy and simultaneity
- attention to details
- consumers noticing details immediately
- visibility into how problems are resolved
- real time communication
- value strongly influenced by point of contact
- quality can be objective or amorphous

Development

- iterating toward final correct product frequently expected
- quality frequently defined in objective terms
- value easily connected to specific performance results, independent of point of contact
- communication infrequently real time
- circuitous path from failure to producer

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HERE'S WHAT I HAVE TO SAY:

▲ Services are "closer" to the customer.

   ▼ Issues, failures and therefore improvement are more prominent.

▲ A "benchmarkable" framework for improvement didn't exist.

   ▼ Other frameworks and models lack built-in infrastructure for institutionalization.

▲ Services are a disproportionate majority of technical work.

   ▼ CMMI-DEV is inappropriate for organizations providing services.

   ▼ Technical work can be a "black box" in a service system.

CMMI for Services Nuts and Bolts

HOW DO WE USE IT?

PROCESS AREAS

Services-Specific PAs in English

Strategic Service Management (STSM):
deciding what services you should be providing, making them standard, and letting people know about them

Service System Development (SSD):
making sure you have everything you need to deliver the service, including people, processes, consumables, and equipment

Service System Transition (SST):
getting new systems in place, changing existing systems, retiring obsolete systems, all while making sure nothing goes terribly wrong with service

Service Delivery (SD):
setting up agreements, taking care of service requests, and operating the service system

Capacity and Availability Management (CAM):
making sure you have the resources you need to deliver services and that they are available when needed—at an appropriate cost

Incident Resolution and Prevention (IRP):
handling what goes wrong—and preventing it from going wrong in the first place if you can

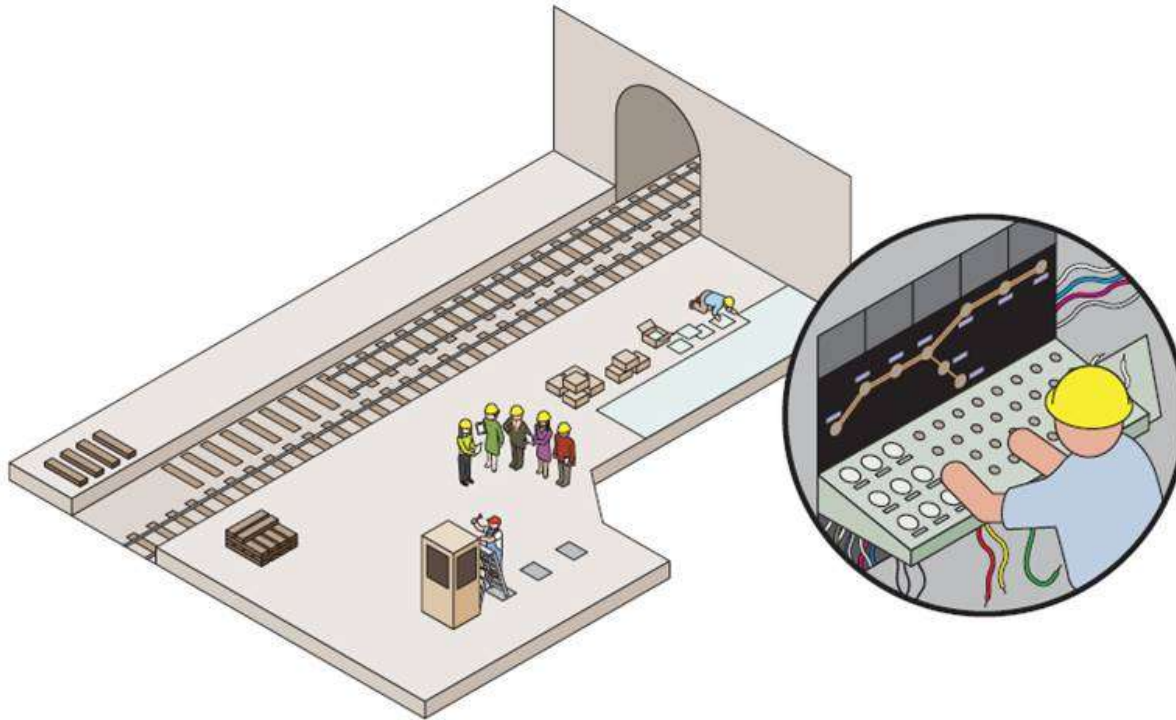**Service Continuity Management (SCON):**
being ready to recover from a disaster and get back to delivering your service

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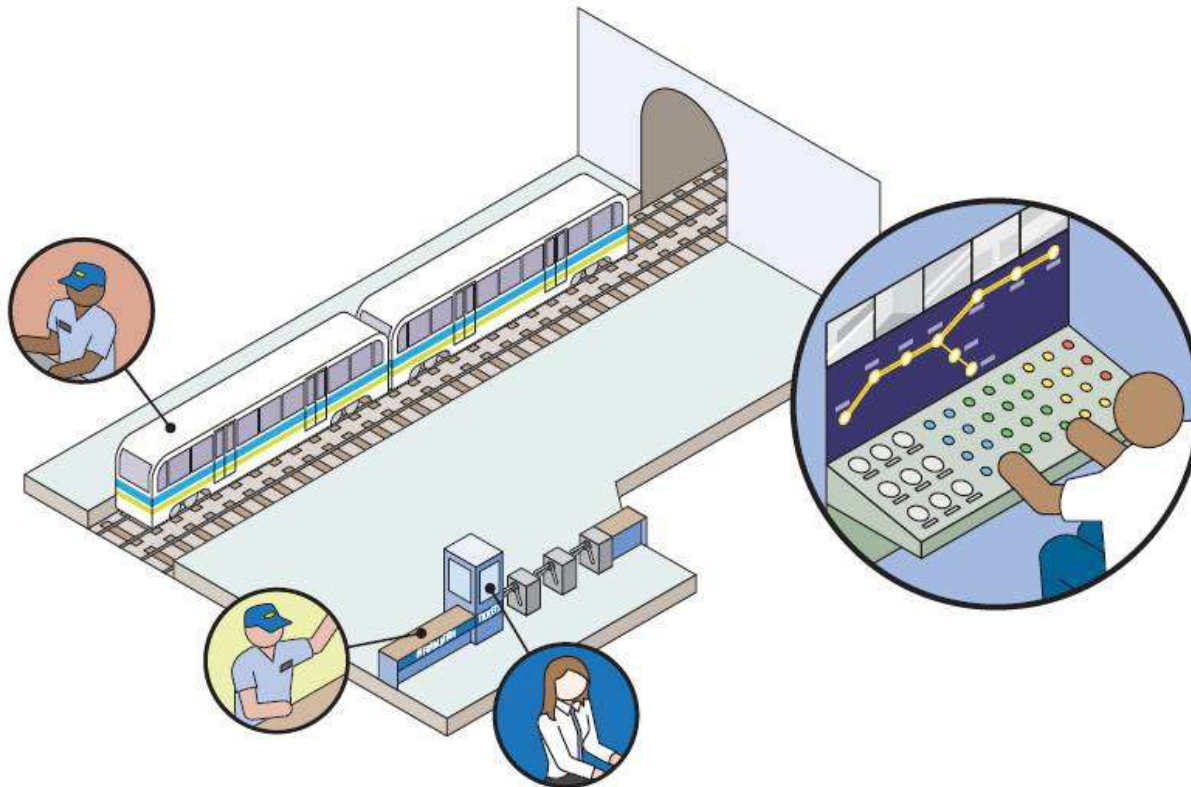**Another Group: Suppliers of Trains, Control Systems, Entry Gates, etc.**

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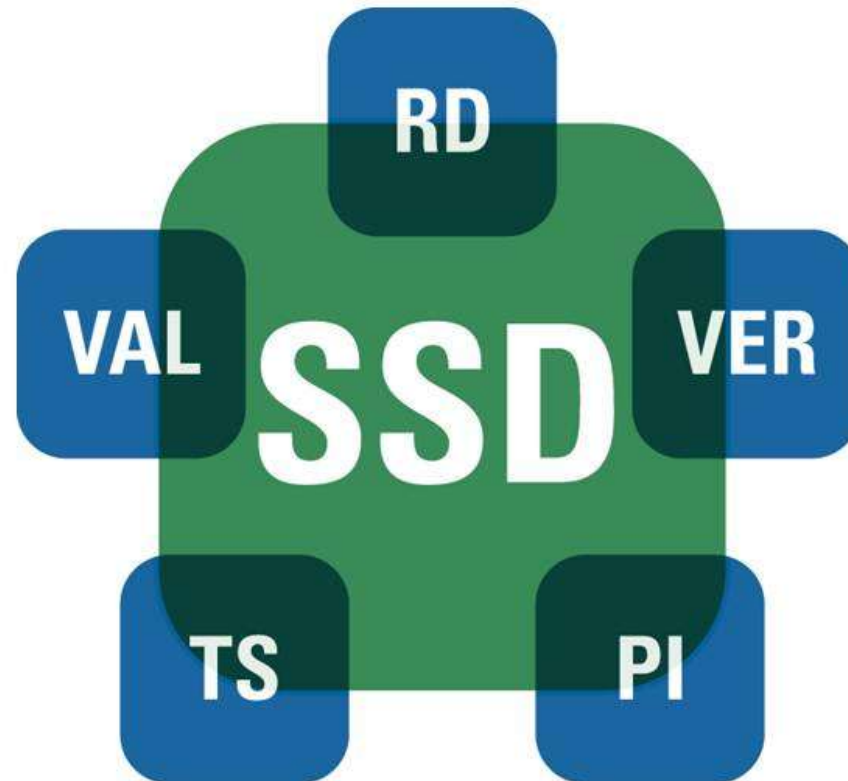## SSD – Note the Components of Room Service

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SSD "Summarizes" CMMI-DEV Engineering PAs

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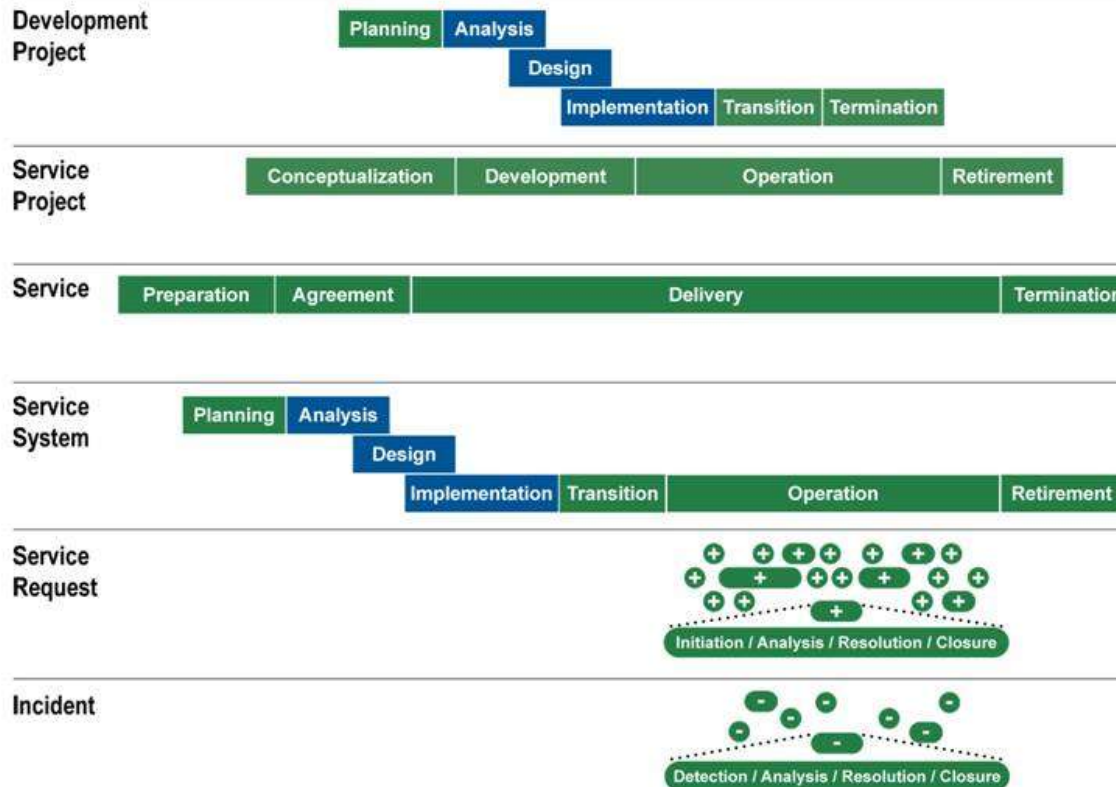
What is the fit with ITIL and ISO and RMM?

We designed CMMI-SVC to be complementary and compatible with ITIL.

We did a full mapping to ISO 20K.

CMMI-SVC is missing security and financial management, though neither is entirely absent from the model.

In part, we left security out because we knew the RMM model was on its way, with full coverage of security and continuity.

ITIL does not have an evolutionary improvement path or organizational supports, and CMMI excels at these. ITIL has more "how to" guidance particular to IT—this is why we think the models are complementary.

RMM is like SCON (service continuity) "on steroids."

We have a working team looking at SCAMPI appraisals to include ITIL.

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Does CMMI-SVC matter to you?

SHOULD WE SWITCH?

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Process Focus & Assumptions
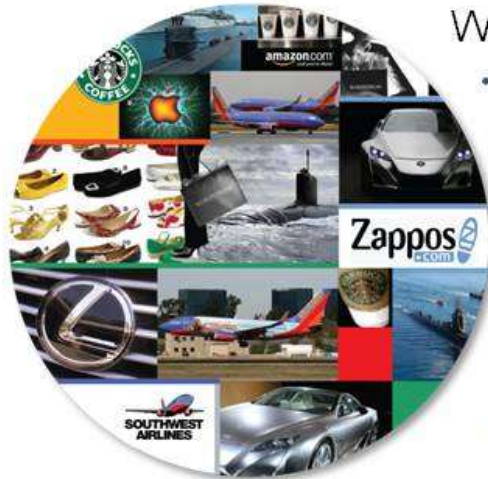
Why focus on process? *To help your business!*

- improve your competitiveness
  - support your customers
    - do more with less
    - expand your market

Assumptions

- capable process means lower cost
- service quality is a function of process performance
- process quality reduces causes of poor performance

In short, you focus on process to do better with time, money, and quality in ways that matter to your customers and to you.

An organization with a culture of process excellence relies on process management to achieve superior service results.

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Things to consider

What Are Some Common Questions?

What is a service agreement? Don't you mean SLA?

What is a service level?

What is a service request?

What is a service incident?

What is a service system?

What is a service system component?

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If you DO Switch (or add)

- ▲ SCAMPI Lead Appraisers, Team Leads and Appraisal team members need to be qualified:
    - ▼ 1-day Services Supplement to *Intro to CMMI-DEV*
    - ▼ 3-day *Intro to CMMI for Services*
- ▲ Appraisal evidence will likely be different even for PAs that are the same.
- ▲ Combination SCAMPIs are allowed but besides evidence, may require different participants and team members.
- ▲ Service dynamics are very different from development... ... ...

It's QUESTION TIME!!
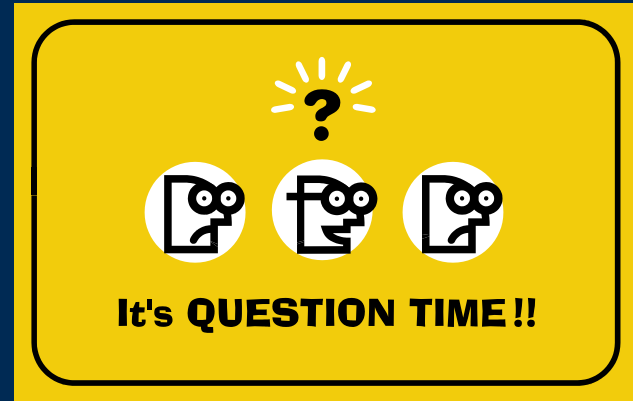
Questions?

THANKS FOR YOUR ATTENTION!

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