Acquisition Pilot: SCAMPI
B/C Pilots in Acquisition Environments

Charlie Ryan, Brian Gallagher

Software Engineering Institute
Carnegie Mellon University
Pittsburgh PA 15213

© 2004 by Carnegie Mellon University
Goals

Develop a usable, accurate, and efficient appraisal method that can address risk identification, risk mitigation, the time constraints, and objectivity requirements related to process capability for program management, source selection, and contract monitoring applications.
Purpose

Problem Statement

- The SCAMPI Class A method is a rigorous appraisal method designed for benchmarking an organization’s process capabilities with respect to the CMMI. The time and effort required for appraisal benchmarking applications are not always necessary or practical for source selection, or contract monitoring applications.

Research Questions

- For SCAMPI Appraisal Classes B and C, what are the resource and information requirements for typical source selection and contract monitoring applications. Determine approaches and effort required for ensuring sufficient gathering and verification of objective evidence to support acquisition management decision needs.
Customers

- NRO (current)
- NSA (current)
- USAF/SMC/Aerospace (current)
- USN/NAVAIR (current)
- USAF/ESC/MITRE (ACE) (probable)
- USA/CECOM (probable)
- DCMA (potential)
- USAF/ASC (potential)
- USN/NSWC (potential)
Collaborators

- IRS
- NASA
- OSD SIS
- SCAMPI MIG Development Team
- SEI/SEPM/Appraisal Team
- STSC
- USAF AFFTC Edwards AFB
Customer- Pilot Fit

Indicate the fit of the practice or technology to the customers’ programs

- DCMA, NRO, NSA, USA, USAF, and USN currently using appraisals for source selection and contract monitoring
- NRO and USAF SMC currently using appraisals for internal acquisition and systems engineering process improvement

Why is this pilot worth conducting with these customers?
- Section 804 Appropriations Bill
- Customers and contractors are asking for assistance
- Scarce appraisal resources in DoD
- Impact of longer appraisals on DoD/Industry/Programs
Approach

- Requirements and Lessons Learned from B+C Pilot to SEI CMMI Appraisal Team
- Incremental Design (next draft of B and C) **
- Select and conduct pilot appraisal (Trial use source selection)
- Document Lessons Learned
- Repeat for contract monitoring
- Inputs to SEI CMMI Appraisal Team
- Update SCAMPI MIG
- Add internal acquisition process improvement guidance
- Revised requirements **
- Revised design **
- Initial SCAMPI B and C **

** Responsibility of SEI CMMI Appraisal Team
Value and Significance

What is the value to the customers?
- First hand experience, training, and advanced application in ongoing acquisition efforts.
- Accelerated appraisal resources at reduced costs
- Customer input to method requirements
- Work with other customers with similar requirements

What is the value to the SEI?
- Actual user input and use in real world applications
- Quicker, broader and more effective transition to CMMI
- Trained SEI/ASP Appraisers with real experience

What is the value to the Acquisition community?
- A formal and practical set of appraisal methods that address real DoD acquisition needs related to process capability and risk identification
Relevance and Timeliness

Why is this worth doing?
- Without this pilot, the appraisal requirements for the DoD acquisition community would not be considered or tested when the SEI Appraisal Team developed SCAMPI Classes B and C

Why now?
- CMMI Appraisal Team developing SCAMPI B + C FY04
- NAVAIR, NRO, NSA, SMC leverage with PWS funding
- Industry Partners (4) scheduled pilots for FY04
Risks

Identify risks and mitigation ideas
- NAVAIR, NRO, NSA, SMC not fully representative of Acquisition Community
  - Added CECOM, DCMA, ESC, NSWC participation
  - Added ASC, Edwards AFB, NASA, IRS, collaboration

- Services unable to keep trained resources
  - Augment with DCMA, FFRDCs, SETA, STSC Vols
  - SEI appraisal registration process

- Source Selection Opportunities this FY
  - Extend Pilot period

Identify any critical dependencies
- DoD acquisition policy and Acquisition Organizations’ commitment
  - Involvement and coordination of OSD SIS
  - Prior email to Acquisition Organizations soliciting interest
Existing Related Research

Will this pilot activity draw from other research, in theory and practice, from other areas?

- This pilot will leverage existing:
  - SMC PWS
  - NRO PWS
  - NSA PWS
  - CRSIP PWS (MIG)
  - Current Acquisition related appraisals
  - SCAMPI A V1.1 MDD
  - SCE V3.0 MDD
  - Industry Partners (4)
  - SEI Appraisal Program related activities
Success Criteria

Indicate success criteria for the pilot activity

- X Clear, actionable requirements consistent with ARC Appraisal Classes B and C are received from core and extended team
- X Prototype site visits provide accurate findings with expended effort acceptable to participants.
- X Detailed Requirements and Lessons Learned are compatible with industry pilot requirements and results
- Adoption of SCAMPI B and C by core and extended team organizations for use in acquisitions.
Lessons from Pilots

“Great learning experience to get in and do the practical part of the exercise.”

“One of the best learning experiences associated with a CMMI.”