Contracting Officer’s Representative (COR) Interactive SharePoint Wiki

James Smith
Andy Boyd

Software Solutions Conference 2015
November 16–18, 2015
Background -1

Today, when a Contracting Officer’s Representative (COR) needs guidance on contracting for software solutions, there is no single reference:

• Many documents
• Contradictory guidance
• Not necessarily relevant to his/her agency

Desire to have a single reference that can help guide CORs to an understanding of how software-intensive solutions:

• What is different about software-intensive solutions?
• How do these differences impact
  • Contract planning
  • Contract formation
  • Contract management
  • Contract closeout
Background -2

Result was the Contracting Officer’s Representative (COR) Desk Guide

- Interactive aid for contract formation and award for software-intensive system acquisition
- Initial focus on Phase B contract award

Contains general references and guidance

- Explicitly designed to be easily extensible and tailorable to different acquisition contexts, offices, and agencies

Initially developed in SharePoint 2010; updated to SharePoint 2013

Updated to incorporate 2015 version of DoD 5000.02
Approach

Collect existing references, guidance, “best practices” into a single knowledge base that can be accessed in multiple ways:

• Workflow perspective
• Topical perspective
• Interactive and hardcopy format

Not simply a compilation of “stuff,” but a *curated* collection of the best available guidance drawn from multiple sources, including:

• *Applicable statutory, regulatory, and agency guidance* (i.e., FAR, DFARS, DoD Instructions, etc.)
• *Deep knowledge and experience within SEI and other FFRDCs* (e.g., SEI technical reports, Aerospace TORs)
• *Other Agency and Service guidance* (e.g., USAF Weapon Systems Software Management Guidebook)
• *Applicable practices in existing acquisition and development models* (e.g., CMMI-ACQ®)
Single Knowledge Base

General and agency-specific guidance:
High-Level Structure

The Desk Guide is organized around the acquisition life cycle, from Pre-Milestone A through Phase C

- Milestone entry criteria
- Phase software activities
- Phase exit criteria

Within each phase, software-related COR guidance provided, including representative RFP language and proposal evaluation criteria

Knowledge base organized into general guidelines/references, agency-specific guidance, and specific topics (e.g., Software Requirements Specification – SRS)
Workflow Perspective - 1

“I need to…”
Workflow Perspective - 2
Workflow Perspective - 3

The data rights workflow provides an instance of a decision tree—used in conjunction with the general and agency-specific guidance—to lead a COR through a simple “Yes/No” path to determine the appropriate Government licensing and data rights.
Topical Perspective - 1

“I want to learn about…”
Topical Perspective - 2

600 - Phase B: Engineering and Manufacturing Development (EMD)

603 - Entry Criteria
Successful Milestone B

604 - Objectives

This phase is where a system is developed and designed before going into production. The EMD Phases follow after a successful Milestone B and Pre-EMD Review and is considered the formal start of any program. The goal of this phase is to complete the development of a system or increment of capability, conduct system verification, develop affordable and executable manufacturing processes, conduct system fabrication, and test and evaluate the system before proceeding into the Production and Deployment (P&D) Phase. This phase focuses on reaching three-related decisions:

- Requirements decision point (called the CDD Validation Decision by DoD)
- Decision to release a solicitation for development to industry, called the Development Request for Proposals (RFP) Release Decision Point, and
- Decision to award the contract(s) for development, called Milestone B by DoD

The key objectives of this phase are to:

- Develop a system or increment of capability
- Design in overall system performance aspects to ensure material availability with particular attention to reducing the logistics footprint
- Integrate hardware, software, and human systems
- Design for producibility
- Ensure affordability and protection of critical program information
- Demonstrate system integration, interoperability, supportability, safety, and utility, and
- Ensure operational survivability with particular attention to minimizing the logistics footprint
- Demonstrate reliability, availability, Maintainability, and sustainment features are included in the design of a system
- Complete phase in set order

Within this phase, major efforts involve reducing integration and manufacturing risk ensuring operational survivability, implementing human-systems integration, ensuring affordability, protecting critical program information and system capabilities mitigating security and counterintelligence risks and demonstrating system integration.

603 - Software Solution Objectives

To achieve a production quality release ready for deployment to the user community:
- Robust software architecture and architecture management processes are defined
- Open System Architecture/Mutable Object Systems Approaches (VAMOS/A) principles are incorporated into the solution
- Scalable, non-redundant, and secure, incremental development

604 - System Acquisition Model

(DOD 5000.02) System Acquisition Model

605 - Mission and Information Requirements (Data Table Model)

[Data Table Model Image]

[Data Table Model Description]
Both Interactive and Hardcopy Formats
External Collaboration Environment

COR Desk Guide Wiki mirrored on SEI’s External Collaboration Environment SharePoint server

https://workspace.sei.cmu.edu/sites/DeskReferenceWiki/SitePages/Home.aspx