

Nine Steps to a Better Statement of Work



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Many people are familiar with Gary Larson's comic strip, "The Far Side." One of his well-known cartoons depicts a castle with a moat under construction *inside* the castle walls. The caption reads, "Suddenly, a heated exchange took place between the king and the moat contractor." Although humorous, this cartoon shows the predicament acquisition managers find themselves in when requirements are poorly communicated to the contractor.

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A recent GAO report (GAO-12-1290) cites a new dining facility constructed in Afghanistan that experienced delays and additional costs because the original construction did not include a kitchen. Why? A kitchen was not specified in the original SOW.

One of the primary communication vehicles for conveying requirements to all parties involved in the acquisition process is the statement of work (SOW). The SOW is a foundational element for a successful acquisition. It is a key tool to managing stakeholders and their expectations. That said, the SOW often is overlooked and not given the proper consideration, time, and effort required to make it effective.

Within the context of government contracting, the SOW is defined as the portion of a contract that establishes and defines all non-specification requirements for contractor efforts, either directly or with the use of specific cited documents. This definition sounds fairly straightforward; however, it cannot be overstated how critical the SOW is to contracting success. It provides a clear description of the work requirements enabling a common understanding between government and contractor project managers. As in "The Far Side" cartoon, a poorly written or incomplete work requirement will lead to problems throughout the acquisition process. The following example illustrates how a poorly crafted SOW impacts acquisition and, ultimately, the warfighter.

A recent Government Accountability Office report (GAO-12-1290) cites a new dining facility constructed in Afghanistan that experienced delays and additional costs because the original construction did not include a kitchen. Why? A kitchen was not specified in the original SOW. This is a rather obvious omission from the SOW, but it was not discovered until after the contract was executed.

There are no foolproof ways to ensure the SOW will be effective and without flaws. In fact, there is probably no such thing as a perfect SOW. However, treating SOW writing as a logical and structured process is generally a reliable way to start down the path of developing effective requirements.

Following nine steps can help craft a SOW that will be the basis for effective solicitations and ensure that the government's requirements will be clearly and fully articulated. In turn, this will allow offerors to develop proposals that better reflect the government's contracting objectives and ultimately result in contracts that are mutually beneficial to both parties.

Step 1: Define the purpose of the acquisition.

As with any problem-solving method, the first step is to clearly and accurately understand the purpose. The purpose of government procurement actions covers a broad range of objectives that vary based on many different factors such as: what is being bought (supplies or services), the complexity of the supply or service, the degree of development of the supplies or services, or whether the supply or service is commercial or government-unique. Often, the objective of the procurement is provided to the SOW Development Team by management and is based on such documents as the Acquisition Strategy, Acquisition Plan, and requirements documents.

The purpose of the procurement will determine the nature of the requirements document(s) used in the contracting process. The three primary documents used in DoD acquisitions are SOWs, statements of objectives (SOOs), and performance work statements (PWSs).

SOWs clearly identify the specific work efforts associated with the acquisition of supplies. They are used when the government has a clear understanding and preference for the type and level of work required for that acquisition. Because there is a preferred approach, SOWs are more prescriptive than either SOOs or PWSs. However the level of detail ranges from providing detailed instructions on how to perform the work to giving a broad description of the type of work to be done.

SOOs provide a broad description of the desired outcomes of an acquisition and are used in solicitations for supplies when the government either has no clear identification of, or no clear preferences for, the type and level of work associated with the acquisition. Each offeror will propose the specific types and level of work they propose to do in fulfilling a resultant contract. The winning contractor's proposed work effort usually becomes the contractual SOW.

PWSs provide performance-based desired outcomes with associated standards for services being acquired. PWSs are the preferred documents when buying services for DoD.

During the remainder of this article, the information and guidance provided specifically addresses the development of SOWs. Information on PWSs and Services acquisition can be

found at the DAU Acquisition Center of Excellence for Services (available online).

In addition to determining the type of requirement document(s) to be used, the purpose of the acquisition will affect the amount and method of conducting market research and types of requirements that will need to be imposed, thereby impacting the membership of the SOW development team.

The purpose of the acquisition needs to be clearly articulated into contractual language as this will become the scope of the SOW and the discriminator of whether proposed work is within the “scope” of the contract or not.

Step 2: Select the major areas to be included in the SOW.

The scope will drive the type and nature of the requirements to be included in the SOW. The SOW development team members should examine the requirements as a team and determine the level of interest each subject matter expert (SME) has for each requirements area. By tabulating these levels of interest into an areas of interest matrix (AIM), a determination can be made how best to organize requirements with interest from multiple SMEs. Using the simplified AIM shown in Table 1, it appears as though configuration management should be best addressed cohesively as a separate major area within the SOW rather than as a subparagraph within multiple SME areas. The areas included within the SOW could be either a functional area of expertise (e.g., program management) or a cross-functional specific area of interest (e.g., training).

Step 3: Identify program- and phase-specific risks for each area of interest.

After the major areas have been identified for the SOW by effective use of the AIM, the risks and opportunities associated with each major area should be identified. Rather than using generic risks, specific risks for the item being acquired and its associated Acquisition Life-Cycle Phase, if appropriate, should be identified. This enables the development of a SOW that focuses on risk areas that will allow the government to differentiate between proposals based on the contractor’s ability to

best manage the risks and opportunities associated with the specific acquisition. Additionally, during contract execution, the contractor’s efforts will be focused on addressing risk and opportunity areas.

Step 4: Develop a phase-specific work breakdown structure for each area of interest.

After the risks and opportunities have been determined for each major area to be included in the SOW, a work breakdown structure (WBS) in accordance with Military Standard 881C, *Work Break Structures for Defense Materiel Systems*, should be developed for each area. The WBS should identify all tasks and activities that need to be addressed within that major area for successful acquisition execution during the period of performance of the contract.

Step 5: Determine government and contractor responsibilities for each WBS element.

After the tasks have been identified by major area, the SOW development team should analyze the tasks against other acquisition documentation (e.g., acquisition strategy) to determine which party (government or contractor) is responsible for the completion of that task. This responsibility can be categorized as follows: “contractor only,” “contractor with government support,” “government with contractor support,” and “government only.” Because the SOW identifies work efforts required of the contractor for successful contract execution, tasks identified as being “government only” should not be included in the SOW. Any tasks requiring contractor expenditure of effort must be included in the SOW along with any actions planned by the government in support of those tasks (e.g., delivery of government furnished material [GFM]).

NOTE: Steps 3 through 5 may be done sequentially or iteratively.

Step 6: Develop a SOW outline.

Just as when writing a research paper, the first step in writing a SOW is developing an outline. Following from Step 5, the outline should logically organize the work efforts to permit the clear identification of the government’s expectations for the contractor’s tasks, contractor support for government tasks,

Table 1. Sample Areas of Interest Matrix

	Program Management	Systems Engineering	Logistics	Contracting	Test and Evaluation	Etc.
Configuration Management	X	X	X		X	
Technical Reviews	X	X	X	X	X	
Earned Value Management	X	X	X	X	X	
System Safety	X	X			X	
Systems Engineering Management Plan (SEMP)		X				
Training	X	X	X		X	

“The contractor shall conduct a critical design review” is active, and it is clear who is doing the action. In



“A critical design review will be conducted,” you do not know who is conducting the critical design review.

The most important aspect of the SOW is that it clearly communicates to the contractor what needs to be done. As simple as this may sound, it is difficult to do. It takes time and effort to carefully craft SOW statements to ensure they are understandable, discrete, and precise. There are many guidelines, dos and don'ts, and lessons learned available to assist in writing a SOW. Although an extensive discussion on these types of resources is not possible in this article, a few key points will be made. The requirements for the contractor must be expressed explicitly using language that is understandable by everyone. The SOW language style is critical; the use of active voice is recommended. Generally, active voice is easier to understand and more to the point. Passive voice is often vague and awkward. More importantly, when writing in passive voice, you can leave out the person or entity doing the action. For instance “The contractor shall conduct a critical design review” is active and it is clear who is doing the action. In “A critical design review will be conducted,” you do not know who is conducting the critical design review.

When writing tasks, use words that have one meaning to prevent multiple interpretations. This assists the contractor in accurately pricing the task and prevents confusion on what the task really entails. The tasks defined in the SOW must be clearly defined and verifiable. For example a task written as “The contractor will hold technical interchange meetings as required.” is ambiguous, subject to interpretation, and impossible to price accurately. Similarly, nonspecific terminology “as necessary” or “in accordance with best commercial practices” is difficult to enforce and price.

Another area worthy of discussion when writing SOWs is the use of performance language vs. “how to” language. Including too many “how to” requirements may constrain the contractor’s efforts and become cost drivers. When possible, state the desired outcome and give the contractor the latitude to determine how to complete the task.

Step 8: Conduct an internal review.

Writing the SOW to be understandable to others and clearly defining the requirements is a challenge. To help achieve this goal, the SOW writing team should conduct a rigorous internal review of all the documentation. Aside from helping to ensure the SOW is a quality product, it will prepare the team for the next step, the external review or “Murder Board.” Each team member involved in the SOW writing should review the SOW to check for omissions, redundancies, consistency, and clarity within the document. Each team member should read the SOW from the contractor’s perspective and ask, “Do I understand each task such that I can make a reasonable price estimate, and can it be verified to the government’s satisfaction?”

Step 9: Conduct an external review.

The final step in the SOW writing process is going through an external review, sometimes more aptly referred to as a “Murder Board.” Generally during this step, senior functional

and support the contractor can expect from the government in support of contractor tasks.

In developing the outline, a standard format should be used such as the *DoD Handbook for Preparation of Statement of Work* (Military Handbook 245D). This handbook provides guidance on how to prepare a SOW for any phase of the materiel acquisition life cycle. Specifically, it covers the preparation of SOWs which correlate to the acquisition life cycle phases identified in the DoD Instruction 5000.02, discusses the operation of the defense acquisition system. As discussed in Step 4, the use of the WBS is essential in the development of the SOW outline. It will facilitate a logical arrangement of SOW elements and provides a checklist to ensure all necessary elements are addressed.

Step 7: Develop the SOW content.

Based on the created outline, each contractor task must be fully described. Each of these tasks should be delineated and as specific as possible. This allows the contractor to clearly understand the requirements and better estimate their costs. This in turn prepares both the government and the contractor for the project, and will reduce conflict resulting from assumptions and undocumented expectations. This will minimize the need for change orders and associated unforeseen cost to the project. A well-written SOW is the reference point to be used to resolve disagreements that may arise on the contractual deliverables, roles, and responsibilities.

SMEs will review the SOW. This may include the contracting officer, legal counsel, PM, and other technical experts familiar with the SOW content. The intent of this review is to provide the final sanity check for the SOW to ensure the contractor will receive a complete, understandable document that effectively communicates the requirements. These reviewers typically have a great deal of experience in reviewing SOWs and know common potential trouble spots and pitfalls SOW writers may face.

In summary: The development of a meaningful, enforceable SOW should be viewed as an investment, not as an expense. The time and effort spent in developing the SOW (and other solicitation and contractual documents) will pay dividends in increased confidence in the ability to select the best proposal and hopefully less contention and better contract execution.


Successful program or contract execution can never be guaranteed. However, effective planning lays a solid foundation that increases the possibility for success. The steps described in this article provide a pathway for the foundation by identifying a process that encourages and facilitates critical thinking during the development of the SOW.

Many of us are familiar with the child's nursery rhyme "For Want of a Nail":

For want of a nail, the shoe was lost.
For want of a shoe, the horse was lost.
For want of a horse, the rider was lost.
For want of a rider, the battle was lost.
For want of a battle, the kingdom was lost.
And all for the want of a horseshoe nail.

Within DoD acquisitions, this might be rewritten as:

Because of a bad SOW, a bad solicitation was issued.
Because of a bad solicitation, bad proposals were received.
Because of a bad proposal, a bad source selection was made.
Because of a bad source selection, a bad contract was issued.
Because of a bad contract, cost and schedules were missed.
All because of a bad SOW.

In DoD acquisitions, the missing nail that initiates that calamitous chain of events is often the lack of well-developed requirements documents. 

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