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Collaborative Technology Procurement

David Rudawitz, PMP

Antevorte Consulting, LLC

September 2007

Abstract

The procurement of technology components such as hardware and software applications, either as part of a larger project or as a project of its own, is often part of the challenge that project managers face on a routine basis. Often taken for granted because of the use of age-old (read" the way we have always done it") methods and assumptions about local procurement rules, these procurement efforts can doom a project from the start.

The procurement of technology components such as hardware and software applications is often the focus of or required for projects that project managers face on a routine basis. Many companies have a build before buy principle which has them selecting, purchasing and implementing commercial off the shelf (COTS) products to meet their technology needs. The methodology used to conduct the procurement part of such a project lays the foundation for success or failure of the project. Procurement practices at many companies and government agencies are dictated by long standing policy and procedure that has generally been geared towards commodity procurements. Arms distance separation between the company staff and the vendors is often the rule. Yet, technology products are much more complex to acquire than commodities such as office machines, desks and paper.

The Classical Procurement Approach

Lets take the example of the effort to acquire a new financial system to replace a company's home-built legacy system. The current system is an amalgamation of computer programs written over the years to meet changing requirements and needs. Old software written using old technology and running on obsolete equipment was retained because it had already been paid for.

The "system" described above has a number of common problems often associated with legacy systems, including:

- Increasingly difficult and time consuming to modify for changing needs over time, as the volume of applied changes grows;
- Time consuming, manual, batch business processes and staff work-arounds needed to get work done;
- Character-based, "green screen", terminal-based user interface that is difficult for employees to learn and master;
- WYSIWYG applications on different hardware platforms with different development and database platforms as well;
- Poor inter-application integration;
- A long history of making the system work in the company environment;
- Inadequate, poor quality and/or missing user and operational support documentation;
- Custom-Built using technology components that are no longer supported and/or have been superseded;
- Limited staff available to support the application as staff ages and/or moves on.

A team of stakeholders is assembled to develop requirements for the new system. The team pours over the functionality and design of the current legacy system and its processes and builds a long list that documents the current system and "must-have" requirements. Technical requirements are added by the IT members of the team. Workshops are held with the stakeholders to validate the requirements. The PM gets the job of developing the project budget for a replacement system. Sitting with the IT staff, they look at previous in house development efforts and come up with a budget that gets approved by the Executive Steering Committee. It is decided that a commercial product is desired as opposed to a custom built solution, based on the "buy-before-build" principle.

Someone sits down and writes the request for proposal (RFP). He/she retrieves the most recent RFP issued (perhaps to purchase a new telephone switch) and uses this as the basis for a new RFP. After many weeks of work, the RFP is 750 pages long in twelve point type. The Legal Department

attaches another 250 pages of boiler plate and terms and conditions and the document is ready to hit the street. Somebody asks how the RFP should be sent out and another team member offers to scan the Internet and put together a list of vendors.

The RFP gets sent out to 75 vendors and they have two weeks to put their proposals together and send them back. The enterprise receives 250 questions from 50 different vendors. Several vendors ask for an extension in the due date, based on the size of the RFP and the number of requirements. Ultimately, bids come in from 15 vendors. A quick review shows that the responses that are within the budget range grossly miss out on meeting the requirements. The responses that meet most of the stated requirements are way over budget. Many vendors indicate that some of the "critical" requirements (most have been marked as critical) can not be met. Several responding vendors propose features and capabilities not even dreamed about by the stakeholders. The Executive Steering Committee sends the team back to the drawing board to try again and the project gets delayed.

The Vendors are Stakeholders

What went wrong here is that a fundamental definition in project management was forgotten. *The vendors are also stakeholders*. The somewhat overstated example above illustrates what can happen when this fundamental definition is forgotten. Why are the vendors left out of the process until the RFP hits the street? Sometimes this is due to the limited experience of the project team and/or project manager in conducting technology procurements. Other times it is due to an overly strict interpretation of procurement rules that leads the team into believing they can not have any contact with potential vendors except through the formal RFP process.

The question is: how to bring the vendors into the process while still following procurement rules and maintaining a fair vendor neutral environment? Our consulting experience, reinforced by discussions with clients and vendors, suggests that a more creative, "high touch", collaborative procurement process may be appropriate for technology acquisitions. This innovative approach starts with creating an extensive level of understanding among the project team of the actual features and capabilities of the existing COTS products and vendors. It also greatly increases the COTS vendors' understanding of the company's needs and requirements, which further supports the overall approach to create and maintain a fair, equal and neutral procurement process.

Here are the suggested steps for this collaborative procurement process. These can and should be tailored as appropriate for your environment and company culture.

Initial Vendor Kickoff Meeting

This first step is intended to inform the vendor community, as specifically as possible, about the needs, requirements and desires of the project team for their new system. It also provides the project team with a first impression of the vendors and will begin the process of educating the project team specifically about the features and capabilities that actually are available in the market place.

Occurring at the beginning of the procurement process, a meeting open to all interested vendors would be hosted by the company. Depending on the location of the vendors and the potential cost of the software, some may not be able to attend in person. Thus it may be appropriate to provide teleconference access. Vendor lists should be developed from the experience of the project team, searching the Internet, recommendations from colleagues, and the use of buyer's advice services

that are available though the Internet for various categories of software. A consultant that specializes in procurement support can also be engaged and they generally maintain lists of vendors for the types of system acquisitions for which the consultants specialize. For large size or mission critical procurements, the use of a consultant to assist the project team is an excellent way to mitigate project risk at this point.

After this initial open meeting, all subsequent in-person interactions with the vendors would be on an individual, one-on-one basis with each vendor and kept under non-disclosure. Company attendance would be limited to the project team for this initial meeting. In this meeting, the vendors would be presented with as much information as possible about the project, as envisioned by the project team and its stakeholders. All information gathered and organized during the project, up to this point, would form the nucleus of the information that would be provided to the vendors. Particular attention should be paid to critical, unique and special requirements that characterize the project. Understanding of these requirements by the vendors is an important outcome of this step. Conversely, understanding by the project team of unattainable requirements is also an outcome which will allow the project team to revisit those requirements.

To the extent possible, this information should be given to the vendors in written form with their invitation to the meeting. Vendors would be encouraged to submit questions and suggestions in advance of the meeting with their anonymity preserved. This step will begin the process of narrowing down the number of vendors that would actually elect to participate and submit a proposal. The output of this step will be the presentation by the company and the questions and answers discussed during the meeting between the vendors and company staff participating in the meetings.

Vendor Conference Room Demonstrations

Following the open meeting, interested vendors would be individually scheduled for demonstrations of their software in a conference room setting. Performed at the company's offices (not the vendors'), these demonstrations would provide the project team and any interested staff with more specific information about the spectrum of features and challenges that characterize the COTS products. Insight gained by the project team during these demonstrations will feed directly into the pre-RFP finalization of the requirements. Having a detailed understanding of the COTS product features and limitations will help insure that the RFP requirements can be careful tailored to be achievable. This step will continue the effort to narrow down the field of potential vendors and is intended to leave a smaller set of committed and viable vendors to actually submit proposals.

The output of this step will be the compilation of the written and electronic information provided by the vendors, the questions and answers discussed in the presentations and any notes/observations documented by the company attendees.

Pre-RFP Requirements Finalization

During this step, the project team will finalize the requirements using the input from the earlier studies and the information obtained during the vendor meetings and demonstrations. Any additional refinement input from company staff and other stakeholders (internal and external) that will use or interact with the replacement system would also be included. The output of this step will be the Pre-RFP Requirements Report.

RFP Preparation and Approval

Starting at the same time as the first step in the procurement process, the project team would be preparing the draft RFP. Legal reviews and associated steps would be worked while the vendor meetings and presentations were being conducted in order to compress the overall procurement effort timeline. The RFP draft will have the Pre-RFP requirements added when they are finalized, thus completing the RFP package making it ready for final approval and issuance.

RFP Distribution and RFP Kickoff Meeting

The RFP will then be issued and an RFP kickoff meeting scheduled. Two weeks after the RFP is released would be adequate time spacing between the release of the RFP and having the kickoff meeting. This will allow the vendors to fully review and understand the RFP so that they can ask critical and relevant questions at the kickoff meeting. All interested vendors would be invited to this kickoff meeting and they will be asked to submit as many questions as possible prior to the meeting. This meeting should be limited to a half day and should be held at a company office. It should be very structured and feature a presentation by the project team that reviews the RFP and all key elements. Attention to changes made since the initial vendor meetings will be important so as to highlight those changes to insure that the vendors recognize and understand them. The output of this step will be the meeting presentation by the project team and the set of questions and corresponding answers.

Proposal Ranking Methodology Development

Starting at the same time as the Pre-RFP Requirements Development, the project team would be developing a methodology for requirement ranking of the vendor proposals to arrive at a vendor selection. A quantitative approach is recommended where ranking is determined through the mathematical combination of the importance of a requirement and a vendor's ability to satisfy the requirement. The individual values for each item being evaluated would be the average of the rankings assigned by each member of the evaluation team. That is, each evaluation team member can assign an importance and requirement achievement score for each item. The importance and requirement achievement scores are then multiplied to arrive at the evaluation team member's score for that evaluation element. Then, for each evaluation item, all the scores are averaged to arrive at a final score for the item. The output of this step will be the ranking methodology and a tool to use in actually ranking the proposals.

Receive Proposals and Perform Initial Ranking

For complex acquisitions, the vendors should be provided with at least one month to prepare their proposals. Proposal quality and accuracy is directly affected by the amount of time that the vendors have to prepare their responses. Too short of a time period introduces project risk that the proposals will not reflect the true work required and the associated cost. The amount of time that the vendors would be comfortable with should be solicited during the initial vendor meetings. There is a "sweet spot" of time that is not too short that it affects the quality and depth of the proposals and is not too long as to encourage vendors to sit on the RFP for a time and then rush to get it out the door. This has typically been in the four to six week range. For a schedule that has a vendor kickoff meeting in second week after RFP issuance, a six-week proposal schedule would seem to be optimal.

Part of the evaluation would be telephone interviews by the evaluation team, with customers of the vendors that have proposed. These interviews should include both vendor customer's that have been vetted by the vendor as a reference and customers that are not on the vendors' reference list but listed as a customer. The evaluation teams should use a prepared questionnaire that will help guide the interviews and provide a basis for the compilation of the interview results. To the extent practical, the questionnaire should be provided to the selected interviewee customers in advance of the actual interview. The independent selection of customer interviewees will help to provide unbiased reports about the vendor and their products.

The evaluation team will have been selected and would include, at a minimum, the project team members. The final membership of the evaluation team should be determined such that all major requirement-driving organizations are represented and such that any organizational bias can be minimized. The evaluation team will review the submitted proposals and conduct a preliminary technical/requirement ranking. Based on their technical/requirement ranking and how well the proposed costs fit into the overall project budget, not more than three vendors should be selected for the short list.

The output of this step will be the individual and combined ranking report for all vendors submitting proposals and the initial review ranking and short list selection.

Detailed Demonstrations Including On-site Installed Similar Systems

All vendors should be put on notice that both detailed conference room demonstrations and on-site demonstrations with at least two of their customers will be required if they are selected to the short list. With this in mind, the vendors should be required to select these demonstration sites, clear it with those customers, and provide that information in their proposals.

The conference room demonstrations for this step would be expected to take two or three days and should demonstrate how the COTS product satisfies each of the RFP requirements. Single day customer site visits would round out the demonstrations, which would be estimated to take a week per vendor. During these demonstrations, the evaluation team will individually refine their rankings of each vendor, item by item. They will also be able to better assess each vendor as a potential long term business partner should they be selected as the COTS vendor for this project.

The output of this step is the final technical/requirement ranking of the short list vendors.

Selection

The last step is the final selection by the evaluation team. Meeting as a team, they will come to a consensus of a final ranking based on the technical/requirement ranking, the proposed costs and how well the vendors will collaborate with company as a long-term business partner. The output of this step is the final ranked selection that will enable the negotiation and contract award to the number one ranked vendor. Having ranked all three short list vendors, the company has a fall back should negotiations fail with the number one ranked vendor.

The output of this step is the final selection and contract award.

In Summary

The procurement approach described in this paper is quite a bit different from the classical "hands-off" approach usually employed for technology procurements. This approach will greatly reduce the risk for your project in several ways:

Help the project team to tailor the requirements and RFP to what is actually needed and what actually can be acquired;

- Insure that a suitable COTS product can be selected;
- Insure that the vendors fully understand the project requirements and any unique aspects to the procurement;
- Reduce the number of proposals to viable vendors/solutions and insure that they can be more easily evaluated and ranked;

Another advantage of this approach is that it will narrow down the field of viable participating vendors making the proposal review and ranking less difficult. The procurement morphs into a collaborative process based on shared information. This is the best way to insure that all parties have the maximum amount of information to provide the best possible outcome and help insure the success of the project.

Although this example was based on the purchase of a COTS software product, it is also applicable to the development of a custom software application. In fact, such a high touch approach can be critical to insuring the success of a development effort. Using such an approach helps to insure that the development vendors truly understand what is desired for the custom system.

David Rudawitz, PMP, is Vice President of Antevorte Consulting, LLC and a senior IT management consultant with recognized subject matter expertise in Enterprise Architecture implementation and automation. He has conducted evaluations of EA tools as well as implemented tools for EA teams. He has practiced his craft over 30 years with companies such as Ameron Corp., General Dynamics, Eclipse Solutions, Holmes & Narver, Inc., IBM and Northrop Grumman Corp. He is a member of the Project Management Institute (PMI), IEEE, Computer Society and the Association of Computer Machinery (ACM). Mr. Rudawitz can be contacted at David.Rudawitz@Antevorte.com.

A n t e v o r t e C o n s u l t i n g , LLC

887 6th Street, Suite 203
Lake Oswego, OR 97034
Phone: 503 636-7240
www.Antevorte.com