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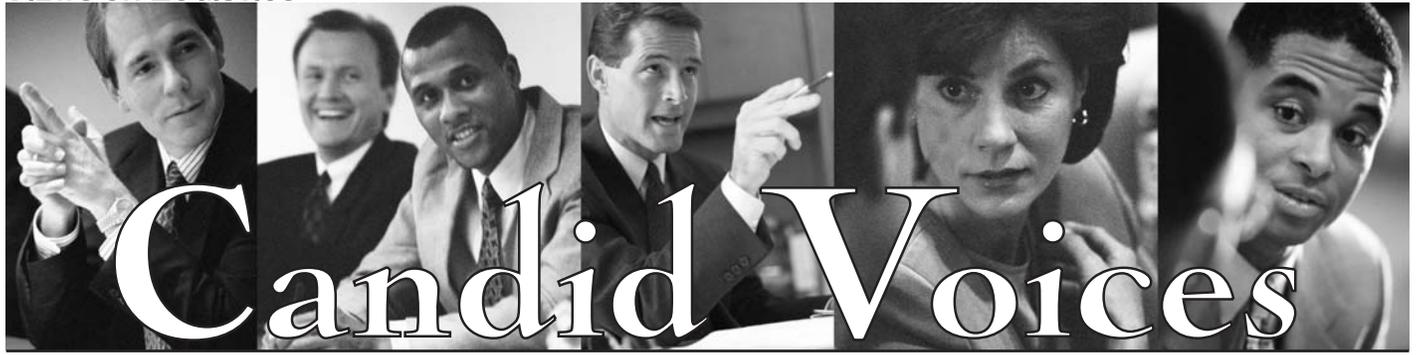
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The USAF Tech Data Dilemma—How Much Tech Data to Buy and When

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Buying tech data for new systems has a few land mines to watch for, but it does not have to be the *Nightmare on Elm Street* it all too often becomes. The nightmare usually starts with a very high price tag, causing a dilemma for program managers (PM). The PMs must make tough choices between meeting short-term acquisition budgets and schedules or providing for best value choices for the life cycle of the system. Years down the road, the nightmare unfolds when the readiness of aging weapon systems depends upon future program managers finding even more money to buy the data. At that point, the data has become essential, but the PMs simply cannot afford it.

Over the years, this issue has been explored by various government experts and key recommendations have been discussed. For example, a recent Government Accountability Office report recommended that PMs must "...emphasize the importance of having rights to the technical data needed to support the management of all logistics contracts." In describing an industry best practice, they found that, "every company visited told us they acquired the technical data necessary to support the equipment," whether they intended to support it in house or not. These companies described the data as, "essential to their own management and oversight functions."

Not only is it a best practice to acquire the data, Air Force PMs have been directed to do so "when needed." A 2003 Joint leadership memo (SAF/IL and AQ policy letters) calls data an essential corporate asset to support our systems and says it must be made available to those who need it.

So how do PMs avoid the nightmare? What actions can PMs take to comply with this guidance? This article explores the tech data dilemma and offers a concise recommendation to navigate the technical data land mines without disaster.

How Do PMs Get Into This Dilemma?

Many examples *litter the road* of recent procurements where a previous program manager decided not to buy the data or put any provisions in place to buy it later. A newly assigned PM comes along, charged with taking the program to the next level or with making a change in the operating and support strategy, and quickly realizes the desired objective cannot be achieved without the tech data that was not bought previously. "No

problem," says the new PM. "I'll just hammer out a deal with the vendor for the needed data." Unfortunately, the sticker price will often be a show stopper. "How can Company XYZ believe its data is worth that much! Who can I talk to?" The answer, in short, is nobody. This scenario has played out in government program offices for longer than anyone would care to admit. A coherent strategy is needed to improve the situation.

It is not enough to blame the previous PMs—their decisions not to buy the data were often based on very reasonable arguments. It was expensive. It was not needed then, or expected to be needed any time soon. The contractor was not interested in releasing its proprietary rights or intellectual property. Budgeting and obtaining the funds then, would have delayed critical progress in the early phases. The projected need date for using the data was years out based on the current operating and support concepts. All of these seemed like real and valid reasons at the time.

Even when PMs buy the data early, it often becomes outdated over the years as the physical configurations for systems evolve. When the data eventually gets pulled off the shelf, a great deal more money is often required to get it up-to-speed with all the current configurations.

The early PMs were not evil, ignorant villains. Instead, they were professional planners, juggling complex combinations of possible program plans. Eliminating the purchase of expensive data removed what was then a low priority, high expense factor. Their decisions immediately improved their *big three* metrics—cost, schedule, and performance. All three areas probably looked better the instant the purchase of data was removed from the equation. The decisions thus made perfect sense from their perspective. But years later, with new PMs in charge, far removed from those early decisions, the reality can be quite different! Why? Short and simple, things change—new plans emerge; leadership transitions; priorities evolve; Congress redirects funds; some partnerships grow and others die, and specific threats come and go. Real life is a living breathing animal—that isn't a bad thing, it is just reality. This new reality is magnified even further in DoD's new evolutionary acquisition environment. Air Force acquisition programs from the outset will now be designed to change from increment to increment, implementing the time-

phased requirements of users taking advantage of maturing technology over time. Planned change is the new reality. The real question is not who is to blame, or how did this bind materialize, it is: "How can this dilemma be avoided?"

How Can the Dilemma Be Avoided?

The question policymakers must ask is what can the acquisition community do to reduce the likelihood that this dilemma will affect future systems? What can be changed about the acquisition process to reduce the chance of seeing unreasonably high costs and unacceptably large negative consequences associated with the delayed, late, or nonexistent purchase of tech data?

One fairly straightforward technique is available to do just that. This technique does not require hiring expensive consultants to reengineer the process, top to bottom, turning old ways on their ears, and requiring remedial education and training to make it happen. An excellent solution is for a PM to simply require the vendor to include a series of prepriced options to buy the various portions of all the data. The PM then uses the options as an important part of the evaluation process in competitively selecting the best vendors for the new program or program upgrade. A series of options means there are multiple contract options included that, when taken together, include all of the associated tech data. This generally includes operating and maintenance manuals, engineering drawings, interface control documents, and specifications. If a data item is needed in the future, not only will there already be a contract vehicle in place to buy it, but the price paid will already have been established in a competitive environment. There will be no last-minute surprises, the price will be as low as possible, and informed planning can take place. That is about the best scenario to ask for.

For example, quite often in the Air Force, it is decided a few years after the initial fielding of a system to change the support strategy. The support providers will need the data to successfully implement the change and economically maintain the system for the remaining portion of its life cycle. In all too many cases, the data was not bought, and now it is needed. The original source will likely be the only source for that information. The contractor knows it and so does the PM. The data rights are proprietary and at this point, even more valuable (read expensive). At this point, the new PM is over the proverbial barrel. Of course the contractor is going to value the data highly and price it accordingly. This is not evil or conspiratory. It is reality. It is the way of our capitalistic society.

So why does the solution include soliciting "...a series of options" rather than just one big option that includes all the data? Breaking the requirement down to its component parts gives the current and future PMs the flexibility to pick and choose only the data that is needed, when it is needed. All the data may not be needed simultaneously, so why pay for it all as one big package? If, for example, under a new support strategy, only the repair manuals are needed, why buy the design drawings too? Exercise the appropriate option and pay just the bill for the data that is needed. PMs must work closely with their procurement

team to decide what makes the most sense and what is doable under applicable guidance.

Finally, PMs should use the data options and pricing as a principal piece of the proposal evaluation process when selecting the best original vendor for the new system. Meaningful inclusion in the evaluation factors will help ensure contractor prices are set at the best possible level. The data evaluation should not be the number one concern, but if these data options are not meaningfully included at all in the evaluation factors, then the price will not be set competitively. The hands of future PMs will be tied tightly behind their backs and their alternatives will be severely limited. Then, as systems progress through their life cycles and plans change (for whatever reason), future PMs may end up paying dearly to get the necessary data, if they can get it at all.

Conclusion

A good solution to the PM's tech data dilemma is to first bite the bullet and buy the data that is absolutely necessary to support current operating and support plans. For data not bought immediately, PMs should also put in place a series of prepriced options for all of the data on the original solicitation, and use those options as a meaningful piece of the proposal evaluation process.

Does this strategy eliminate all problems? Will it ensure that data will be cheap and readily available in all situations? Of course not. Data rights will remain an expensive, complex, and vexing issue. The more time that elapses between the start of the program and the need for the data, the more complications can creep up, even with defined, prepriced options in place. Vendors can legitimately claim that the negotiated prices are only good for a limited period of time. Also, the data portion of one vendor's proposal probably would not be the sole reason to eliminate or select them in the original competition. The data portion, however, should be a meaningful factor that is considered as part of the overall, best value package.

The technique described in this article will help ensure PMs do not pay more than is absolutely needed. It doesn't guarantee the data will always be there or always be cheap. Further, it does not spell out exactly what to buy and when. Those decisions will always be determined on a case-by-case basis, dependent on risks, costs, trade-offs, and program peculiarities. The PM and his or her procurement team will have to analyze and work these issues out to determine what makes the most sense for the life-cycle operation and to support their individual program. The technique described herein is not the panacea, but it is a big step in the right direction.

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