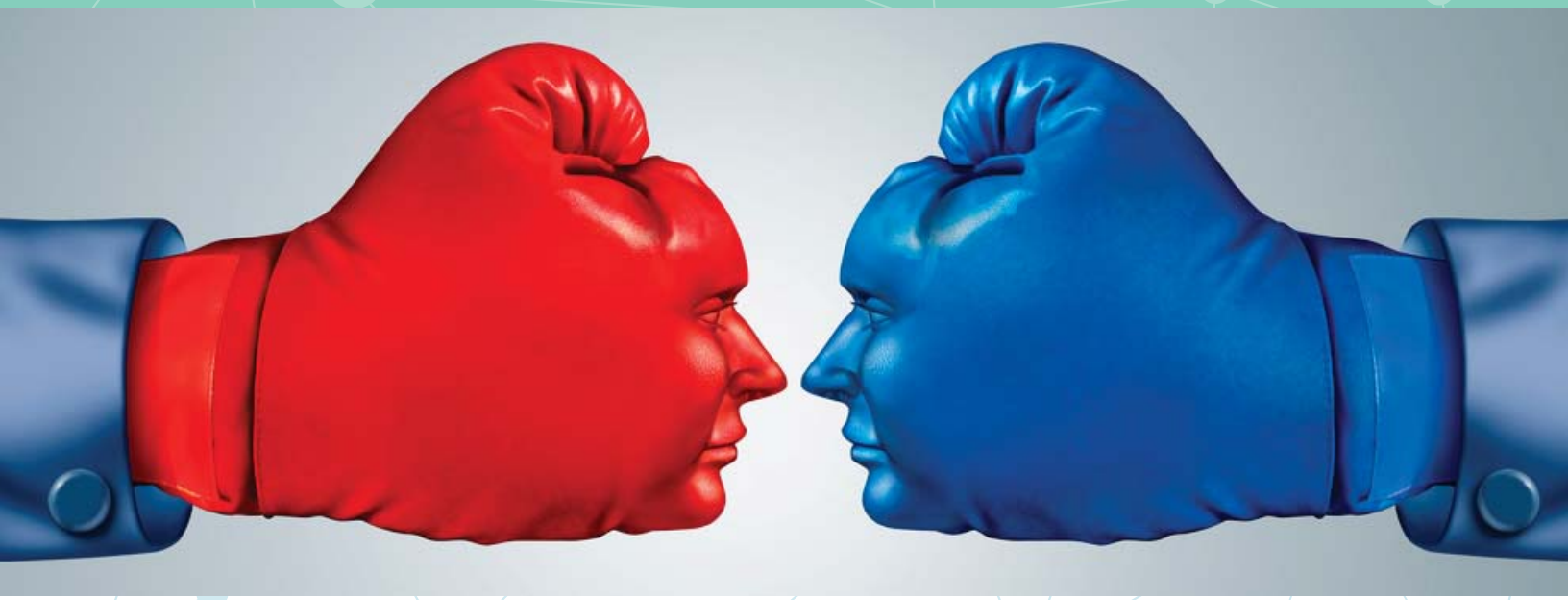
How to Revamp Puerto Rico's Procurement System to Speed Economic Reform



WorldNet℠

How to Revamp Puerto Rico's Procurement System to Speed Economic Reform

By David Bogaty,
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Introduction

The Government of Puerto Rico currently faces the worst fiscal crises in decades, if not ever. Financing alternatives are being shut down and fewer funds are coming in through taxes in the shrinking economy. After trying to restructure $72 million in debt the island owes to creditors, Puerto Rico Governor Alejandro Garcia Padilla recently announced he would not run for reelection. A federal indictment now alleges that his administration has been guilty of cronyism and favoritism.

There is now a push among Republicans in Congress to appoint a federal financial overseer to impose austerity on the island. Whether or not an overseer takes charge, the island's creditors must demand fundamental reform or the island will never turn its economy around. An important part of this necessary reform is how the government purchases its goods and services. The government must bring the bidding process for public projects into the 21st century or the island's economy will continue its collapse.

My company, WorldNet Telecommunications, has experienced the bidding process firsthand. For 15 years, we have served the government on telecom and IT projects and bid on many more. In the current bidding system, the government must award projects to the company offering the lowest price. At first glance, that would seem to be the smartest approach for a government that can barely pay its debts. However, we have found the low-price bidder approach does not serve Puerto Rico well.

There are two reasons: One is that the lowest bidders don't often have the capability to deliver on the contracts they win. Recently for instance, my company lost a bid on a multi-million dollar contract to develop a telecom network to pull together information on the approximately 120 housing projects in Puerto Rico. Puerto Rico has lost millions of dollars in federal funds because it can't provide transparency on how those funds are being spent, and the network was meant to offer a clear window. A year later, the network does not exist, and to our knowledge, the winning bidder has not even provided a project schedule.

The second is that the system creates an almost adversarial relationship between bidders and government officials, who should be working together to solve the island's problems. A system that awards jobs to the lowest bidder encourages work that is not commercial grade. As the U.S. government has put it in its *Seven Steps to Performance Based Services Acquisition Guide*, "Think about the incentive at work: to win the bid but still protect a minimum profit the contractor has to shave his costs, an action that could (and often does) result in the use of substandard materials or processes." In communications and IT, this "cost shaving" often translates into more frequent and longer outages, archaic solutions that don't provide the expected efficiency or needed evolutionary improvements, and increased costs after purchase. Once the solution launches, the government entity often finds itself in a constant battle to demand quality from a provider that charged only for the lowest-quality solution. Failing to purchase technology with a more strategic process leads to ever-decreasing quality and efficiency.

It is no surprise that Puerto Rico's government is now stuck with a web of archaic technology that slows much-needed financial reform. This dated infrastructure is slowing desperately needed redevelopment at every step of the way. Business people who apply online to get a building permit often wait as long as two years, thanks to the island's substandard technology and bureaucracy.

Before any bailouts are offered or austerity measures are drafted, we would strongly urge creditors to demand an overhaul of Puerto Rico's bidding system for technology purchases. The government has a requisite to balance two competing needs: (1) finding savings and (2) embracing cutting-edge technology that will bring efficiencies that spur the economy and allow the government to serve the public well.

We recommend that Puerto Rico employ the best practices of the more value-oriented bidding systems used by the U.S. federal government and New Zealand's government. Those systems are imperfect, but they are far ahead of Puerto Rico's in ensuring that taxpayers' dollars are spent on projects that get completed on time and on budget and deliver the desired results.

"Better value and enhanced performance, less performance risk, and a variety of solutions from which to choose..."

How Puerto Rico's bidding system differs from more efficient models

Many lawmakers and financial experts do not have first-hand knowledge of how Puerto Rico's bidding process works. Currently Puerto Rico uses a system in which government contracts go to the company that offers the lowest-priced solution, with little evaluation of whether that bidder has the knowledge and capability to complete the job. Also, bids are often submitted without pricing standardization, meaning that some bidders include supplemental costs and fees and others don't. This invites gamesmanship in order to secure the appearance of the lowest bid. Finally, cutting corners to do the work profitability, the winning bidders often complete projects in a slipshod way, if they manage to complete the work at all. This ultimately wastes taxpayers' money. (See Appendix A for more detail on how Puerto Rico's bidding process works).

Fortunately, there are many options for improving the island's bidding system. We have examined the bidding systems in Australia, Canada, Washington State in the U.S., New Zealand and the U.S. federal government. We have concluded that the systems in New Zealand and the U.S. federal government offer the most promising models to serve as guides for Puerto Rico.

Both the New Zealand and U.S. governments shifted from a lowest-price approach similar to Puerto Rico's to more effective strategies during fiscal crises similar to the one facing Puerto Rico. New Zealand now uses the Strategic Procurement Approach (NZSP), which is based on the total cost of ownership of its technology. The U.S. uses a similar system called Performance Based Acquisition (PBA). The PBA aims to create "[b]etter value and enhanced performance, less performance risk, and a variety of solutions from which to choose," according to the U.S. government's *Seven Steps to Performance Based Services Acquisition Guide*.

Both of these models, which are similar to each other, are well developed and have stood the test of time. They have many common threads: Both emphasize getting the maximum value out of every dollar spent. They share a commitment to tying acquisition to the core goals of the agency by fulfilling needs and solving problems. They require a broad team to establish needs and problems that drive the acquisition. They invite the competitors in early and openly to help establish evaluation criteria and provide access to all requested and relevant information and personnel. For selection, both evaluate total value by using a matrix that helps procurement officers find the best value at the lowest cost. Finally and importantly, both advocate shifting the relationship with providers from adversarial to collaborative and supportive. This includes maintaining the relationship and evaluating performance together after acquisition. Although it might seem counterintuitive to shift from an approach based on getting the lowest price to one based on the best value for the dollar when money is tight, both of these nations have proved that it makes sense in the long run and often provides less costly solutions.

New Zealand's model for reform

New Zealand's approach is a good place to start. The island nation shifted its approach to procurement after a fiscal crisis in the 1970s and 1980s. With roughly the same population as Puerto Rico, New Zealand had reached the point where its expenses were greater than the receipts flowing into the government. In response, New Zealand legislated strong macro-economic reforms and changed its approach to governing. When it came to government purchasing, New Zealand abandoned the deeply embedded lowest-price approach in favor of a policy based on the most value for the dollar. "The principle of value for money when procuring goods and services does not necessarily mean electing the lowest price, but rather the best possible outcome for the total cost of ownership (TCO)," as New Zealand's recently updated *2013 Guide for*

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Government Agency Purchasing explains.

Though it took several years, these reforms and changes turned New Zealand's economy into one of the most dynamic in the world. New Zealand now has an annual GDP growth rate of 3.0, higher than that of the U.S., where the growth rate is 2.40, and Germany, which has a growth rate of 1.60.

So what does total cost of ownership mean by New Zealand's definition? The country's government has said officials must look beyond price when making purchasing decisions. They must consider *one-time costs*, such as those for equipment; *recurring costs*, such as direct and indirect monthly service charges; *cost savings*, such as hourly wages saved through speedy implementation and process improvements; *anticipated special costs*, such as electricity needed to run equipment and additions to the solution to support growth; the value of *preventative maintenance* by the bidder; and the *cost of repair services*. (See Appendix B for more detail on how total cost of ownership is calculated).

A formula that illustrates this appears in New Zealand's purchasing guide:

Initial Costs + recurring costs – savings generated – income generated + anticipated special costs (service, loss of productivity, out of service periods, time involvement of personnel to ensure functionality).

According to New Zealand's philosophy, government must even go beyond price or total cost of ownership (TCO) and should take a "strategic approach to planning technology procurement." The first step is being aware of the various criteria to evaluate beyond cost. As New Zealand's 2013 procurement guide explains, "The key here is first recognizing every purchase has a purpose towards improving service to the public and ensuring that a final decision factors [in] which solution does this best." This holistic approach including price and effectiveness is part of what helped the government drive the economy forward.

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With these changes in place, New Zealand's procurement system ultimately evolved into one where finding the best solution, incorporating but not decided by price, is the most critical consideration. To enable government officials to find the best solution, New Zealand offers detailed recommendations on how to acquire technology. Specifically, the organization must:

1. Understand the overall goals of the entity conducting the procurement
2. Identify the major obstacles in the way, as well as the perspective of key people in the organization. Once these factors are determined, government officials must establish which problems the new solution *must* solve and which are beyond the direct scope but would add additional value.
3. Establish a budget, even if it is lower than the current one
4. Invite the providers into the organization to ask as many questions and investigate as much as they want. Build a collaborative, not adversarial, relationship with the providers. This helps the providers to innovate. The logic is that the more they know about the situation and obstacles, the better the end solutions will be.
5. Ask potential technology suppliers to present a solution that solves as many of the problems as they can within the budget.

Finally, officials must select the winning bidders. They must "[E]nsure the best supplier is selected for the right reasons and at a price that represents value-for-money over the life of the contract," according to the government's guidelines. This approach directs organizations to build and use a selection matrix outlining all of the important criteria. Under this matrix, government officials must:

- Exclude price from the matrix until the end of the evaluation process. Early on, the matrix should include a section on how each solution advances the organization's goals
- Evaluate how many problems each solution solves and how big they are
- Ensure there is enough information to calculate the total cost of ownership, factoring in the formula and criteria above.
- Evaluate the suppliers' ability to deliver on their promises on time and on budget and require three references from similar implementations. Evaluators should address suppliers' capabilities in their recommendations
- Look at the size, structure and number of employees, including the technical employees and project managers each supplier has. Also look at the structure of the provider.
- Consider suppliers' support capabilities and ability to manage repairs, as well as their 24/7 availability and response time
- Look at suppliers' ability and willingness to customize or modify service or solutions
- Evaluate suppliers' agility and flexibility when it comes to delivering their service and resolving problems.

Suppliers are ultimately ranked according to the broad criteria in the matrix, with several methods used to reflect internal priorities. For instance, each of the criteria might be given a priority between one and three, and then each company's solution might be ranked on a score of one to five for quality. Prioritizing and weighting the ranking in this way and totaling the scores results in a final ranking where the higher the score the better the solution.

Price is only evaluated after the ranking is calculated, and it is only a starting point for the conversation on value. Total cost of ownership is what really influences the decision. The best solution balances the lowest TCO with the highest ranking in the value matrix. In the long run, this system has resulted in more strategic procurement that has

"Ensure the best supplier is selected for the right reasons and at a price that represents value-for-money over the life of the contract..."

improved the effectiveness of each organization, secured the best value per dollar and strengthened New Zealand's economy.

The intent of this process is to shift the paradigm from traditional "acquisition think" into one of collaborative, performance-oriented teamwork with a focus on performance, improvement and innovation.

The U.S. model for reform

Like New Zealand, the United States government also transitioned away from a lowest-cost bidder approach for technology and other complex purchases in the 1970s. Leaders recognized that straight low cost bidding was too often not producing the best solution to solve issues and improve government service.

The U.S. now uses the Performance Based Acquisition method, similar to New Zealand's system. Its goal is to generate "[b]etter value and enhanced performance, less performance risk, and a variety of solutions from which to choose," according to the U.S. government's *Seven Steps to Performance Based Services Acquisition Guide*, developed by the Department of Acquisitions and other public and private organizations. The government has used the guide to set goals, such as one in 2006 that 40% of acquisitions costing over $25,000 for the total life of the contract be conducted using the PBA approach. The intent of this process is to shift the paradigm from traditional "acquisition think" into one of collaborative, performance-oriented teamwork with a focus on performance, improvement and innovation.

This guide provides good insight into how to make more effective government acquisitions. Here is a summary of the seven steps:

1. **Establish an integrated solutions team.** The public entity needs to ensure senior management involvement and support to clearly define a project's purpose and goals and obstacles in the way and prevent turf battles within an organization. It's important to identify stakeholders within the organization and answer: "What do they need, when do they need it and how do we know if it's good?"

The U.S. system calls for providing incentives to the acquisition team, in which acquisition performance is linked to members' performance.

- *Tap multidisciplinary expertise.* Members from the core area that is making a purchase, finance and primary users, who will rely on the solution to perform their jobs, should be part of the procurement team. This is in contrast to the traditional method of having IT or the procurement area exclusively run technology acquisitions.

- *Define roles and responsibilities.* "The team is responsible for ensuring the acquisition satisfies legal and regulatory requirements, has performance and investment objectives consistent with the agency's strategic goals, successfully meets the agency's needs and intended results, and remains on schedule and within budget," the guide says.

2. **Describe the problem that needs solving.** The procurement team should ask: Where do we want to go and how will we know when we get there? The contract should improve the agency's mission and performance goals and objectives, according to the guide. It should define at a high level the desired results, such as fewer defaults on federal loans, reduction in benefit processing time, broader dissemination of federal information, or reduced time to get relief checks to victims. The procurement team should also define what constitutes success.

3. **Examine private-sector and public-sector solutions and let them examine you.** The procurement team should do the due diligence to learn about the distinguishing characteristics, strengths and weaknesses of each provider. The federal guide emphasizes focusing less on what the providers say and more on past performance.

- *Invite private-sector providers to interview the team.* "Competing providers must have access to the integrated solutions team and program staff so that the contractors can learn as much as possible about the requirements," the guide says. This shows how the different competitors can use their technical ingenuity to best solve the problems and add value.

- *Hold one-on-one meetings with the industry.* Understand the market positioning of each competitor. Verify if there is any additional information needed to make the best proposal. Let them drive the direction and use this as a means to preliminarily evaluate them.

"Competing providers must have access to the integrated solutions team and program staff so that the contractors can learn as much as possible about the requirements..."

4. **Select the process.** The procurement team should develop a Performance Work Statement (PWS) or Statement of Objectives (SOO). A key is to not specify the requirements so tightly that each competitor submits the same solution.

   In the traditional performance based approach, the PWS, which is more standard, starts with a needs statement. That is followed by a performance work statement and quality assurance plan. An alternative method is to require competing contractors to develop the performance work statement, performance metrics, measurement plan and quality assurance plan – all of which should be evaluated before the contract is awarded. In this method, the SOO is incorporated into the RFP and states the overall solicitation objective.

Both processes share a focus on results and outcomes, measurable performance standards and acceptable quality levels. A key is that they provide the objectives to be attained but do not mandate the solution on which to bid. This ensures that contenders will submit innovative and streamlined approaches to accomplish the objectives.

As in New Zealand, the U.S. federal system uses a matrix approach to decide the winner. The matrix must capture the following information from the prospective providers:

- What is to be accomplished as the end result of the contract?
- What task must be accomplished to give us the desired result?
- What are the performance standards for completeness, reliability, accuracy, timeliness, customer satisfaction, quality and cost?
- How will success be determined and measured?
- What carrot or stick will be offered to the providers and how will standards be enforced?

5. **Decide how to measure and manage performance.** Performance should be evaluated by how well the bidder solves the problem outlined in Step 2 and follows the process in Step 4. The federal government recommends using a specific methodology for creating an overall performance and management approach. (See Appendix C)

6. **Select the right contractor.** The contractor must have history of performing exceptionally well in the field and have the processes and resources in place to support the mission. The federal guide to Performance Based Services Acquisition recommends using five keys in selecting contractors: (1) oral presentations by the contenders, (2) emphasis on contractors' past performance in evaluation, (3) consideration of the "best value" in selection of a solution, (4) checking for conflict of interest and (5) management of the contractor's performance through integration into the solutions team. For more detail on how to conduct each of these steps, see Appendix D.

Recommendations for Puerto Rico

The models described above offer valuable ideas on how to improve the procurement process of the Government of Puerto Rico but need to be tailored to the local culture. The primary changes needed to transform Puerto Rico are in two areas: making selections on total value per dollar instead of price and forming collaborative instead of adversarial relationships with suppliers. The details can be tailored to fit the local culture.

As the governments of both New Zealand and the U.S. have learned, it is key to develop a supportive relationship with the providers of the service. A key to this is to open doors and invite the providers in. Encourage them to investigate and learn as much about the organization as they can. The more they learn, the better able they will be to develop innovative solutions.

To move toward a system based on getting the highest value per dollar spent, government officials in Puerto Rico must develop a budget and then list the organizational problems it needs to solve and let bidders compete on developing the best solution within the price range. This provides the most powerful solution for the lowest cost.

Currently, Puerto Rico's government relies on selection based on price presented. To move toward an approach based on value, we recommend switching to a method, similar to New Zealand's, that allows government officials to consider the total cost of ownership of a solution and incorporating vendor led solutions that emphasize innovation. For simplicity, we can name it the Most Value per Dollar (MVD) approach. The MVD approach has two main steps. First, government officials should provide a budget and list of problems to solve and ask bidders to submit proposals. Next, the government should evaluate the proposals for innovation and effectiveness, using a matrix in which price is eliminated from the evaluation process until the very end. That is the basic recipe to maximize value per dollar. The government should follow these steps for all complex purchases over $50,000 and a scaled down version for all purchases that are not commodities.

Applying the two areas of change recommended, an effective process for Puerto Rico can be outlined in six steps:

1. **Define the problems to solve**. Start with the must-solve problems that led to the request for proposals (RFP). Then focus on macro governmental and agency goals and work down into more detail.

2. **Build a strategic acquisition team.** Include a cross section of personnel from core areas to refine the problems to be solved from a macro level to a micro level.

3. **Invite vendors into the process.** Give vendors only the problems to solve. Let them explore the issues and have access to all non-sensitive information and personnel. This is a key step and very different from current practice. Currently, the organization tells the bidder how to solve the problem and provides limited if any acces to personnel.

4. **Set evaluation criteria.** Structure it around problems to be solved and utilize vendor input, industry best practices and total cost of ownership.

5. **Structure the RFP.** Provide the budget but not the solution and request a two envelope submission where pricing is separated in the second envelope

6. **Evaluate and select.** Use total cost of ownership, the quality and effectiveness of the solution, and the performance record of the bidder – not price – as the criteria.

For a more detailed explanation of how this model works, see Appendix E.

Moving to this system would represent a big shift for Puerto Rico. Nonetheless, there are intermediate steps that can be taken that will immediately improve purchasing over what it is today. For instance, an RFP could be run on a total cost of ownership approach, rather than on price. To take it one step further, the government could improve its due diligence on the providers by including face-to-face presentations and verifying performance history. A simplified balance between quality and cost could be achieved using the information collected in due diligence and a simple formula.

To be even more effective, the government should continue a best practice strategy through implementation of the technology and for the life of the agreement with the provider. There are methods to entice the provider to meet its commitments and even improve the solution as time goes by. The best practice methods ensure that the collaborative and supportive relationship continues between the government and the vendor throughout the life of the agreement.

This proposed system is not the only method that can help Puerto Rico turn around its procurement system. Nonetheless, this or a similar method should be implemented immediately to help Puerto Rico's economy turn towards recovery. As both New Zealand and the U.S. have found, the best time to achieve meaningful reform is often during an economic crisis.

APPENDIX A

How Puerto Rico's bidding system works now:

1. There is a public announcement of a pending bid

2. The announcement provides general information of the services required. Many times, the RFP does not provide a pricing standardization. As a result some bidders include all fees and costs while some leave these out, influencing the final decision by creating the illusion of low price.

3. Competing providers are prohibited from talking with government personnel to learn more about the agency's functional needs and whether different ideas to solve the problems are welcome.

4. In a pre-bid meeting, more specifics of the solution requested are provided and there is an opportunity to ask questions.

5. Government officials respond to questions either verbally in the meeting or in writing to the bidders afterward with no opportunity to follow up on the answers provided. In our experience the contact people in the meetings usually lack the knowledge to answer important technical questions and address administrative priorities and preferences.

6. The formal RFP is issued. It typically specifies all of the technical requirements. Most often it is a solution that sub-optimizes available technology.

7. Bids are submitted and frequently announced quickly. The decision-making team looks only at the initial price page and selects the lowest-price bidder.

APPENDIX B

How total cost of ownership is calculated in New Zealand:

This illustration of the factors considered when procuring technology helps to illustrate how the total cost of ownership is determined:

Initial Costs = the nonrecurring costs associated with the purchase of hardware, licenses, implementation and perhaps support.

Typical costs in this category are:

- Equipment costs, including taxes and fees
- Implementation and setup fees
- Software licenses
- Integration services to ensure interoperability with other technology
- Needed upgrades to wiring or infrastructure.

Procurement officers subtract any gains the solution provides from savings and earnings. So for instance, they would arrive at ongoing solution costs by subtracting savings and income from recurring costs.

Some important costs and savings in these sections are:

- Monthly service invoice (including fees and taxes). It is critical to confirm these, as some providers add profit by escalating fees or omit fees them from the initial proposal.
- Maintenance, service and software upgrade agreement
- Solution scalability costs (Will costs flex with your needs to expand or contract?)
- Scope of maintenance and repair work included in proposal. Procurement officers need to know where additional charges begin.

Important areas to check include:

1. Third-party vendor coordination for problem resolution
2. Necessary support beyond the scope of the contract
3. Network active monitoring

4. After-hours support

- Cost per hour for additional work.

Then added capabilities or improvements and income that the solution offers are subtracted from the cost. Some common differences in providers and solutions that create savings are:

- Hours of labor saved
- Speedy problem resolution and scheduled or online status updates
- Integration activities beyond implementation of solution
- Problem diagnosis, repair activities or recommendations beyond the scope of the provider's solution
- Efficiencies created in process or operational capabilities
- Elimination of the need for current contracts in related services
- Savings in future hardware or software license fees
- Reduction in cost of other services
- Increased ability to create inflow of funds.

Anticipated Special Costs. These are often costs that are expected but may not be included in the proposal. Sometimes they are not obvious. Below are some specific areas that can add costs:

- Facilities and Power

1. Cost of space needed to house equipment
2. Cost of electricity needed to run the equipment (including cooling)
3. Training and education of employees who will use the solution. This is particularly critical when changing technology (e.g., from legacy to VOIP or an in- house to a cloud-based one)
4. Cost of training materials and the initial training per employee
5. Staff time away from job
6. Retraining at least twice in the first year. Procurement officers should ask if there is a train the trainer option.

According to the New Zealand buying guide, quality of preventative maintenance can

also be major factor in anticipated costs that may increase total cost of ownership. In Puerto Rico these go to the number of internal resources needed to run and maintain the system or create unnecessary workarounds and to the costs of down time.

Factors to consider that can be costly to public entities are public confidence in the service of the agency and jeopardy of federal funds. Procurement officers should ask:

- Will the provider be in charge of problem identification for issues that affect service but that do not reside in the purchased network (such as in the internal LAN or customer owned equipment)?
- Will the provider captain multiple supplier coordination to prevent changes from interfering with equipment interoperability?
- Will a technology assessment be included to highlight weak areas and existing equipment to prevent duplication, solution failure or increased costs in the future?

Repair services. Another potential cost that impacts total cost of ownership is length of down time and internal resources needed to effectuate the repair. This leads to loss of employee productivity and ability to serve the public. Procurement officers should compare providers on, the following using facts and statistics rather than unsupported claims:

- How often service is out and in need of repair (Mean time between breakdowns)
- How long it takes for the provide to do a repair (Mean time to repair)
- How long it takes to diagnose an outage not in the supplier's network
- Time and resources to coordinate supplier integration to fix the problem
- Equipment replacement during the life of the contract
- Internal resources needed to follow up with the supplier to complete the repair
- Who will maintain a log and schedule of pending repairs and service requests to ensure they are complete?
- How efficiently are billing disputes resolved?
- Are credits offered for down time?

APPENDIX C

How the U.S. evaluates' contractors' performance:

Here is what the federal guide recommends procurement officers do in measuring the results contractors have achieved:

- Use standardized best practices where available or ask contractors to propose the metrics and quality assurance plan (QAP). The Guide advises, "When contractors propose the metric and QAP, these become true discriminators among the proposal in best-value evaluation and source selection." In other words, the comprehensiveness and relevance of each provider's QAP is a powerful evaluation tool. If a provider proposes to measure itself strictly and meaningfully, that is a good indicator of quality. The measurements should be limited to those that are directly tied to the program's objectives.
- Use incentives and negative consequences, but base them on meeting targeted performance standards, not minimum requirements. Minimum objectives only help to achieve minimum performance.
- Link the award to the best solution, then provide savings-sharing incentives that in which the provider shares the savings generated by the solution. This should extend beyond price into savings accomplished through improvements in efficiencies and solving problems that saves on purchasing other solutions. This builds the relationship by matching the incentives of the government with that of the provider.
- Rely less on management by contract and more on management by relationship.
- Meet at different levels with contractor to identify ways to improve efficiency, reduce cost drivers and better use the technology to accomplish goals.
- Establish a process improvement-working group with the contractor.

APPENDIX D

Here are the U.S. government's recommendations on selecting the right contractor:

Use oral presentations in evaluating contractors. Oral presentations remove the "screen" that a written document can erect. How a contractor responds to on-the-spot questions gives the solutions team a better feel for contractors' understanding of the requirements and capability to address the government's needs. During this process it is important to dig into each solution to find holes and determine the likelihood of success. How prepared and knowledgeable a bidder is often becomes clear during this process. According the Seven Step Guide, "It is nearly impossible to award [effectively] without conducting discussions."

Emphasize past performance in the evaluation. "Past performance record is arguably the key indicator for predicting future performance," the seven step guide says. References, particularly those from other government entities, are vital tools to use. This process helps separate those who win as political rewards, or low ball quality from those that execute effective solutions. Some effective measures are listed below:

- References
- List of all similar Government contracts and contacts to call them
- Ask competitors to identify awards or recognitions for performance
- Ask if competitors track customer satisfaction, implementation and issue resolution quality

The integrated solutions team must go beyond calling a few references in evaluating contractors' past performance. Below are more suggestions to ensure performance quality. Ask references for details of how well in other similar contracts the competitor:

- Conformed to the contract requirement and standards of good workmanship
- Adhered to schedules and timeframes
- Forecast and controlled costs
- Managed risk
- Provided reasonable and cooperative behavior and commitment to customer satisfaction
- Demonstrated businesslike concern about the interests of the customer.

Use "Best Value" evaluation for solution selection. This step advises procurement officers to select the most advantageous offer by comparing factors in addition to cost or prices. Keeping in mind the organization's goals and needs, the procurement officers must determine which solution delivers the greatest value for the money. The "Best Value" method should include:

- Quality and benefits of the solution
- Quality of the performance metrics and measurement approach
- Risks associated with the solution
- Management approach and controls
- Management team (Limited to key personnel)
- Past performance
- Past experience

This is where the use of the matrix we discussed earlier comes in. Creating weighted averages for the different evaluation criteria in the matrix can be an efficient method to evaluate. For instance, total solution costs may receive a 50% weight while all other considerations may receive 50%.

Check for conflict of interest. – This last step does not need much elaboration.

Manage performance. This is the final step in selecting the right contractor and one not contemplated in traditional acquisition processes. However, the old legacy process of keeping an arm's-length distance from contractors does not work. In the new approach, the contractor must be integrated even into the acquisition team. This was recognized as a guiding principle in federal policy FAR 1.102©.

To effectively manage the performance the following steps are recommended:

- Keep the integrated solutions team together. The team must meet frequently with the contractor to discuss and evaluate the performance according to the metrics and to strategize about how to improve the results.
- Assign accountability for managing contract performance. A big breakdown in many organizations is that nobody has accountability for the performance, so nobody ensures it is meeting expectations. A formal captain needs to be named.
- Add the contractor to the team at a formal kick-off meeting. This cements the ongoing participation of the contractor.
- Apply the six disciplines of performance based management

i. Cultural transformation – Manage needed process and thought change

ii. Strategic linkage – Provide a consistent vision throughout the organization, making sure the desired result reflects organizational strategic goals

iii. Governance – Establish roles, responsibilities, and decision-making authority for project implementation

iv. Communications – Identify the content, medium and frequency of information flow to all stakeholders

v. Risk management – Identify, assess, monitor, and manage risks

vi. Performance monitoring – Analyze and report status, schedule, and performance on a regularly scheduled basis during project execution.

This final step of selecting the right contractor concludes the federal process is conforms to Performance-Based Services Acquisition and is designed to ensure the value that was purchased was actually received. It is important in this stage to focus on improving performance, not evaluating people.

The federal process ends by emphasizing two keys to success when acquiring goods and services:

- Compete the Solution – "The key to selecting the right contractor is to structure the acquisition so that the government describes the problems that need to be solved and the contractors compete by proposing solutions," the seven step guide says. "Too often government prescribes the solution and contractors are asked to fill in the blanks and price."
- Use "Due diligence" – This is the period where the competing suppliers take the time and make the effort to learn as much as possible about needs, priorities, problems, budget and goals of the government. It usually includes site visits, meetings with key agency people, and investigation and analysis that are necessary to develop a competitive solution tailored to agency requirements. During this time the competing providers must have open access to the integrated solutions team and program staff so that the contractors can learn as much as possible. "It is a far more open period of communications than is typical in more traditional acquisitions," the seven step guide says.

APPENDIX E

Below is a detailed explanation of how to execute the steps of the Most Value per Dollar Approach.

1. **Define the problem to solve.** Leaders should clearly explain the primary goals of the government entity in next three to four years and in the next year, in writing. This high-level perspective should then be followed by a description of the primary obstacles or problems interfering with the accomplishment of these goals. This outline provides the context that all strategic acquisitions should be made within. Each purchase must clearly support the advancement of these goals and help overcome the obstacles.

2. **Build a strategic acquisition team and fill out the goals and obstacles in more detail.** The size and makeup of this team varies with the complexity and size of the acquisition but should be between three to six people. It is important to tap multi-disciplinary expertise. If the purchase is technology-based, the team should include leadership representatives from the technical, financial and administrative areas, as well as any core areas that will be impacted by the change. For instance a new VOIP phone system with a call center should include the leader who runs the call center and perhaps the area most dependent on sending and receiving data.

a. The high-level goals and problems outlined in Step 1 should be expanded by this team into more details relevant to each member's specific areas. For instance, the technical area may be concerned about the end of life of its phone system but should also address the organizational problems created by the old system. The core areas impacted should add their specific goals and the main obstacles hindering their accomplishment. Finance should establish a budget. The leader from administration should ensure that the specific area goals help accomplish the overall agency goals. Except for the technical member, participants' goals and obstacles should not be focused on technology but on general efficiencies and service in team members' areas of expertise. Three guiding questions should be:

i. What do I need to advance my area?

ii. When do I need it?

iii. How will I know it's good when I get it?

b. Roles and responsibilities should be assigned to the team members. Regardless of whom they are assigned to, all team members are responsible for ensuring the purchase meets and supports all legal and regulatory requirements (including safeguarding or securing Federal funds), has performance objectives consistent with the agency's overall strategic goals, successfully solves the critical targeted problems, and remains on schedule and on budget.

c. Clear rules of conduct should be developed. The team should clearly define its purpose and approach to working together. Important rules to include are: How often the team meets, the project plan to complete the process, and personal agreements on contributions and follow through.

3. Invite potential providers into the process and tell them only the problems to solve, including the budget. This is a very important step and perhaps will be the most uncomfortable for Puerto Rico's government. The current culture is one of secrecy and mistrust, with only limited information made available. By allowing prospective providers to assist in research, government leaders will be able to take advantage of more complete and sophisticated solutions.

   Opening up the process can also be used to evaluate each provider's ingenuity and expertise. Give bidders full access, channeled through the solutions team, to further explore the issues and existing infrastructure and compare how each provider responds. This approach leverages the skill and knowledge of the private industry experts to assist the government in acquiring the most valuable and technologically forward solutions.

Here are a few best-practice suggestions:

a. Set up one-on-one meetings with prospective suppliers and interview them at this early stage to begin to form distinctions. Learn which the lowest-cost option is and how the low cost is achieved, which option is the highest quality, and what the difference is. Ask why they lost the last three deals, who is their biggest client by revenue and by number of locations, and for an example of when and how they applied their technology to create specific value.

b. Invite the potential providers to ask any and all questions that may help them develop innovative solutions. Open doors throughout the organization so they may explore existing solutions, gaps and needs. Provide them all non-confidential information to assist them in crafting the best solutions.

c. Provide the budget to the industry. Procurement officials may fear that revealing this will lead to overcharges by providers, but evaluating vendors based on the total cost of ownership and most value per dollar will prevent this from happening.

4. Set evaluation and solution measurement criteria. Historically, Puerto Rico has put very little emphasis on this step and has defaulted to evaluating almost exclusively on price. The result has frequently been the purchase of inferior solutions, cost overruns, and antiquated technology.

The following steps will set the government up to drive innovative, quality solutions that drive efficiency for the lowest cost:

a. Define the desired outcome for the government entity. This can be the short (one-year) and long-term (four-year) goals for the entity.

b. List the important organizational problems to solve, identified by top administration, down to specific operational challenges in each key area in order of priority. It is important to emphasize these are not just technical challenges.

c. Ask all prospective bidders to send in recommended metrics to evaluate the solution. Metrics should measure not just the quality of the solution but also its effectiveness to solve the organizational problems identified earlier. Seek best practice metrics through consultation with experts in the technology, who will offer more effective measurement criteria than the non-experts in the government organization. As the U.S. federal government put it "[W]hen contractors propose the metric and QAP, these become true discriminators among the proposal in best-value evaluation and source selection."

d. Ensure you include your own quality measures. Beyond the promised value of a solution it is important to ensure the provider can deliver.

Quality measures may include:

i. History of conformity to the contract requirements and standards of good workmanship

ii. History of meeting projects' schedules

iii. History of accurately forecasting and controlling costs

iv. History of timely response on repairs and service requests. This should include average wait time, time to repair, keeping customer informed and time to process billing disputes and credit requests

v. History of providing reasonable and cooperative behavior and commitment to customer satisfaction.

We intentionally did not include requests for service level agreements (SLAs) on all of these things. The reality of SLAs is that providers can overpromise, and once the solution is installed, it is difficult for the purchaser to enforce these agreements. This history-based approach, echoed by the federal government, advises "The best indicator of future performance is past performance."

e. Decide if Puerto Rico-based companies should receive preference

f. Use the total cost of ownership formula and factors listed above in the New Zealand method. This can be adopted almost as is for technology but will need to be adjusted for different industries.

The formula is:

i. Initial Costs + recurring costs – savings generated – income generated + anticipated special costs (service, loss of productivity, out-of-service periods, time personnel must spend to ensure functionality).

ii. The full suggested list of factors to include for technology purchases are listed below. To conserve time, we recommend limiting the list to the 15 to 20 most relevant ones.

1. Initial Costs = the non-recurring costs associated with the implementation

- Equipment costs including taxes and fees
- Implementation and set up fees
- Software licenses
- Integration services to ensure interoperability with other technology
- Needed upgrade to wiring or infrastructure

2. Recurring costs – savings generated – income generated = ongoing solution costs reduced by savings and earnings generated using the solution.

- Monthly service invoice (including fees and taxes). These must be confirmed as some providers add profit by escalating fees or omitting them from the initial proposal.
- Maintenance and software upgrade agreement
- Solution scalability costs (Will costs flex with your needs to expand or contract?)
- Scope of maintenance and repair work included in proposal. Where do additional charges begin?

Important areas to check:

1. Support beyond point of demarcation
2. Network active monitoring
3. Is after-hours support available and does it cost extra?
4. Cost per hour for additional work.

Saving generated can include efficiencies generated from the solution including hours of labor saved, repair process efficiency, outage credits granted, elimination of peripheral contracts and service no longer needed.

Revenue generated could include such things the provider co-locating equipment in the government premises and using it to service other businesses. Let the providers be creative.

3. Anticipated Special Costs. These include:

- Facilities and Power needed

1. The cost of the of space needed to house equipment

2. The cost of electricity needed to run the equipment (Including cooling)

3. Training and Education – In order to maximize the benefits of the solution you need to train and educate employees. This is particularly critical when changing technology (e.g., moving from legacy to VOIP or an in-house solution to one that is cloud-based)

- Retraining at least twice in the first year. Procurement officers should ask if there a train the trainer option.
- Cost of training materials and the initial training per employee
- Staff time away from job to focus on maintenance, provider follow up, and costs required to expand or add capabilities
- The need for government staff to captain problem identification for service-impacting issues that do not reside in the purchased network or solution (i.e., internal LAN, customer-owned equipment)?
- The need for government staff to captain multiple supplier coordination to prevent changes from interfering with equipment interoperability. If the supplier will handle this function, will there be a charge?
- Will a technology assessment be included to highlight weak areas and existing equipment to prevent duplication?
- Repair services.
- How often is service out and in need of repair (Mean time between breakdowns)?
- How long does it take to repair (Mean time to repair)?
- How long does it take to diagnose whether an outage not in the supplier's network?
- Time and resources to coordinate supplier integration to fix the problem
- Equipment replacement during the life of the contract
- Internal resources needed to follow up with the supplier to complete the repair
- Internal resources needed to maintain a log and schedule of pending repairs and service requests to ensure they are complete
- Efficiency of resolution of billing disputes
- Credits offered for down time

Structure and Issuing of the RFP. Executing a Most Value per Dollar RFP can be done many ways to achieve an effective outcome. One good method that is used in other jurisdictions is the weighted-attribute matrix, with cost only included afterward as a cost effectiveness ratio. This model requires that RFP requests that two envelopes be submitted with the solution and quality criteria in one envelope and pricing in the

second. This allows the team to focus on value first, without bias by price. The envelopes containing prices are only opened and factored in after value has been scored.

To be clear, cost still plays a central role in the decision and the budget is always under control. There are two steps to execute this model. First, create the internal scoring matrix and second create the document to send to the prospective suppliers.

Below are the steps to execute the first part, creating the internal matrix.

- List in order of priority, row by row in a matrix, the organizational challenges or problems that interfere with attaining the goals or that are keeping the entity from operating at its highest. Discretion should be used to select the top five to 10 issues. The core problems leading to the acquisition should be listed as number one. It is very important to list only the problem to solve, not the solution.
- Add below this the areas of quality measurement.
- In the next column, assign the numerical weight to each problem and quality concern on a scale between one and 10, with 10 being the most important. For instance problem one could be "Two departments are responsible to complete one function but each works from different data and therefore duplicates work and causes 100 hours per month of inefficiency" and "Problem Two is "Granting permits for conducting business takes too long (30 days average). Problem one may receive a weight of 10 and problem 2 a weight of 8. At the bottom add all of the numbers in the weight column to get a cumulative number.
- In the next column, add the label "Weight" and divide the score of each problem into the cumulative number. This gives the percentage weight of each problem to solve.
- In the proceeding columns place the name of the bidders at the head of each column. Leave a blank column after each company column. You will use this later. Now, pick the scale to score each of the submissions. For instance you can use a scale of 1 to 10. The low number should always reflect the low value. 1 could be "Poor" and 10 could be "Excellent." After you score each company on each category you can calculate the weighted score.
- In the columns after each company places the label "weighted score." Now calculate each weighted score by multiplying the number score by the weighted percentage in the corresponding row.
- Add up weighted columns at the bottom and compare the numbers among the companies. The company receiving the highest score offered the most value and quality combination.

The second step to making the selection is incorporating cost. As discussed, price will not be the determining factor but total cost of ownership. Using the cost effectiveness ratio with the total cost of ownership can be accomplished executing the following

steps:

- Setting the matrix to calculate the total cost of ownership
- Start by opening the second envelope and put the initial one time price from supplier in one row.

Beneath this, add rows for each additional one-time cost criteria selected in the prior step. Add a few extra rows to include items identified after provider submission of the RFP answers. Providers may include or leave out different pieces of the solution, which would add or reduce the cost. Place a "+" next item as a reminder that these increase the cost

- Below this, add a row for recurring costs requested in the step above and listed from supplier.
- The next rows will be blanks for recurring costs identified in the RFP or subsequent steps
- Again put a "+" in front as a reminder
- Label the next set of rows as comparative savings generated and place a "-" by each row as a reminder that these are subtracted from the price. These will be savings requested and identified by the providers. These must be shown as real savings with evidence to be included. For instance:
- Efficiencies generated from solution including hours of labor saved
- Repair process efficiency
- Outage credits granted
- Revenue generated
- Finally, add a series of rows for anticipated special costs. These are "+" as they will add costs. This provides the opportunity to capture any additional costs not captured above. Some examples are:
- Costs of increased outage time
- Vendor coordination for outages or issues incorporating more than one part of the solution. Costs are extended time of outages and hours of labor for employee coordination
- The final step for calculating total cost of ownership is to add the column of costs and savings.

Now factor in total cost of ownership to final decision with cost-effectiveness ratio. This is a purely mathematical method, which makes it objective by definition. It can be completed as follows:

- Create a table with four columns.
- Column one is bidder name, column two is total weighted score from the last exercise, column three is total cost of ownership, and column four is cost-effectiveness ratio (CER).
- The CER is calculated by dividing the total cost of ownership (column three) by the total weighted score (column two).

The lowest CER is the leader of the process pending final selection. The lowest CER illustrates that the provider is providing the most value (denominator) for the cost (numerator). Now the matrix is ready for the ranking of providers.

The second part is preparing the document to send to potential suppliers. The critical part here is to *not* provide the solution and ask for price. Unlike the low- cost bidder approach, which is based on providing the solution and requesting pricing, the most value per dollar approach is based on providing only the problems and requesting the solution. The RFP should include the following parts.

- Request executive summary of the solution and what problems it will solve
- Request two to three options from each provider. This will encourage innovation and out-of-the-box ideas because bidders will be able to have standard offer to fall back on. Request the pros and cons of each.
- Provide the budget for the providers to work with
- Request the recommended solution details and all technical specifications
- Include what other solutions were considered and why the final ones were ultimately recommended.
- Provide the list of problems to solve, starting with the initial problem that led to the initial need. Prioritize the problems. You may wish to provide the ranking so the companies know how they will be measured and devote the resources accordingly. Ask them to detail how their solution will solve the problems claimed in the executive summary. Emphasize facts and hard numbers.
- Define quality measures
- Provide the list of quality measures and supporting data you will measure for providers to submit
- Conduct due diligence
- Request three references and contacts from projects of similar size and complexity
- Request a short statement of what distinguishes the company from its industry
- Ask for number of complaints filed against the company either in court or any other relevant regulatory body. (For telecommunications it would be the Telecommunications Regulatory Board)
- Ask for any company awards or customer accolades in recognition of quality
- Incorporate the total cost of ownership into the RFP. For this, ask the providers to include a second envelope for all price and cost-related information.
- Provide the pricing matrix you will use for internal evaluation but ask for each provider to support each charge and savings with hard facts. If they do not, do not provide them credit or assume a worst-case scenario. (You can save these questions and gaps for the face-to-face interview and adjust the score accordingly)
- Ensure you have a section for regulatory, taxes and other fees.
- Provide the categories in the total cost of ownership formula and ask the providers to detail each cost their solution will cause the government entity to incur and savings and income it will lead the entity to earn. For expenses, emphasize areas that will add to the internal cost of personnel. For example, ask for the time frame to repair, process of follow up (automated, average length of phone calls, provider-initiated follow up, and average number of calls needed per repair completed). Vendor coordination to resolve issues, billing disputes resolution and training are also important cost components. Encourage providers to detail any areas where their solution can save additional money or generate revenue for the government entity that have not been asked directly.
- Ask the provider to list all other one-time or recurring expenses and savings that will be or may be included in the solution. Add any items not specifically requested in the matrix

6. **Evaluate and Select.** Once the submissions are received put the pricing envelopes aside and begin with the solution submission ones.

- Evaluate the solutions by placing the evaluations of each in your own matrix side by side. For each, include additional value or negative factors in the spaces at the bottom of each section as appropriate. (It is important to rank all on every category or the end result will be incorrect). Pay particular attention to unsupported claims and grade down for those and add a reminder. Missing information and unsupported claims will be handled in a later step. For the time being, unsupported claims or blanks can be given a lowest score.
- Only after the ranking of value and quality is complete should the cost envelopes be opened. Follow the same process of entering the numbers in the matrix. Start with the submitted price and add and subtract from the total cost of ownership items in the matrix. Be sure to add any of these items in the blank spaces under each section that you identify in the submissions. Mark any blanks from the submissions and save them with the questions from the solutions. Blanks can be temporarily given the highest cost. This may change if support or numbers are provided later.

- Add or subtract all the added costs and savings to arrive at a total cost of ownership at the bottom.
- Next, send to all of the companies all the questions about their submissions and ask them to prepare answers with supporting facts.
- Schedule face-to-face presentations for each submission. This allows the purchaser to meet the teams and consider each team's preparedness and expertise in the evaluation. Second, it allows them to answer the questions and fill in any blanks. It is important to verify consistency with the written submission. Based on the impressions and answers, the vendors' scores and total cost of ownership can be adjusted and the value per dollar recalculated. The parties should not be allowed to change their proposals, but only provide explanations and fill in the blanks.
- The remaining unsupported claims or costs should work against that provider and the temporary values can be kept in place.
- At this point a decision can be made to discard any submissions with a TCO over the budget.
- The last step to arrive at the value per dollar is to calculate it by populating the table made in Step 5 and divide the total cost of ownership by the weighted average value score. The lowest number provides the most value per dollar.
- Finally, follow up on all of the due diligence and ask questions of the providers' references around the areas important in the current RFP: Did they complete the project on time and on budget? Is the network stable? Is repair efficient? Is service easy and fast? Does the company have the technical expertise to manage the solution effectively? Past history may indicate future performance.

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