USCCG

METRICS

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USCCG Makes Federal Case; Wins GSA Contractor Approval

There is a strong movement afoot among federal government entities like the Department of Defense (DoD) and the Department of Homeland Security (DoHS) to improve their operational efficiency to behave more like private industry. But the lack of skills, knowledge and expertise required to make such a transformation has encouraged government to partner with private sector companies to accelerate the process. Recognizing the growth potential in this market segment, USCCG recently applied for approval as a General Services Administration (GSA) contractor. Such accreditation allows USCCG to do business with all agencies of the federal government, as well as state and local governments, that procure products and services via the Management Operations Business Improvement Schedule (MOBIS).

According to John Eaton, USCCG's public practice sector leader, "We decided to enter the marketplace because the DoD in recent years has embraced the concept of operational improvement using the tools and methodologies which we have expertise in and have been utilizing for many, many years. With the DoD wanting to use Six Sigma, Lean, Theory of Constraints and Balanced Scorecard, and doing the kinds of things we've been doing for our entire history, we felt it would be beneficial to the DoD for us to bring our expertise to them."

The approval process itself was an arduous task, which took nearly five months to complete. To smooth the way, USCCG hired another consulting firm, EMSI out of Alexandria, VA, to help keep them on track and maneuver through the sometimes-tricky process. This included submitting over 20 customer references to verify USCCG's quality of work, as well as complying with a laundry list of current government regulations, including the Equal Employment Opportunities, Disabilities and Veterans Acts, among others.

"We are an outstanding company that can make a significant contribution to the public sector."

Eaton for the Defense

USCCG will be focusing primarily on the Department of Defense and the Department of Homeland Security, where its expertise gained by successfully implementing more than 1,200 engagements in the private sector would be most beneficial.

"The DoD is in the midst of a major transformation that involves two significant aspects," Mr. Eaton explains. "The first is logistics. They've got to move away from a Cold War infrastructure of fixed bases and responding to threats by countries into a highly mobile, very flexible organization that can move very quickly in response to terrorist activities and small conflicts. In order to get the soldier to a certain place quickly, a logistics support system which aligns with that strategy must be in place. The logistics organization has to be able to move equipment, people and supplies very, very rapidly. DoD defines logistics as getting the materials from the supplier to the appropriate user, maintenance depot, supply depot or whatever; handling the maintenance of all the equipment; and then getting the equipment from the maintenance facility to the war fighter (soldier).

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"Secondly," he continues, "they have got to reduce their costs in that logistics process from end-to-end. You just have to look at the situation in Iraq, where equipment is deteriorating eight times faster than it would in a non-combat zone, to see that all the money the military can save in their logistics process can be applied to purchasing new equipment. With their limited budget, they won't be able to replace the equipment if they don't improve the efficiency of their supply chain. So cost reduction is paramount."

The Jury's Still Out

The issues with Homeland Security are a little different, Mr. Eaton explains, and deal primarily with integrating the 23 entities, including the FBI, CIA and the Coast Guard, which fall under the Homeland Security umbrella. This is where USCCG can facilitate and streamline the processes that will help all those entities work as a cohesive unit. But most of the issues lie within the individual entities themselves. Mr. Eaton cites the Coast Guard as an example, where aircraft and ship maintenance is critical.

So what does USCCG bring to the table? They bring their number one asset: their proven ability to generate tangible financial impact in a short period of time, backed by years of success in the private sector. Another asset is the firm's very exhaustive knowledge of processes related to maintenance, supply chain, procurement and distribution. The third asset is USCCG's Six Sigma and Lean expertise in both the areas of maintenance and supply chain, a rare capability among operational efficiency firms.

"But another advantage is that we have always taken the customer's strategy or desired outcome and executed against that desired outcome, maintaining the linkage between the executive's desire and what we do to generate financial impact and operational improvement," contends Mr. Eaton. "Many of our competitors don't make the linkage between the customer's desired outcomes from a strategic viewpoint and what they execute. They make a point of going in and providing specific solutions, which may or may not link back and make a contribution to the desired strategy. So those are the differentiating qualities we bring to the table that most of our competition can't match."

"One of [USCCG's] critical strengths…is its ability to hire the right people for the right job and the discipline with which they execute, especially in operations."

And finally, "One of the critical strengths of this company," says Mr. Eaton, "is its ability to hire the right people for the right job and the discipline with which they execute, especially in operations. None of our competitors can stand up to that."

That became apparent when one of USCCG's senior operations managers, Paul Harker (see page 3), was tapped to participate on the Office of the Secretary of Defense's Continuous Process Improvement Subject Matter Experts (CPISME) Team. The team is charged with evaluating the end-to-end sustainment value chain that keeps weapon systems in a mission-capable status. It encompasses the processes that must take place to get an asset into the hands of the war fighter and keep it there. The team consists of one representative from the assessment management firm Logistics Management Institute (LMI), one DoD representative and eight subject matter experts in Lean, Six Sigma, Theory of Constraints and Reliability Centered Maintenance.

Mr. Harker, who rated in the top of the technical quintile, was selected from among some 40 applicants from industry. In this capacity, he will travel to numerous military installations over the next several months to evaluate progress of the initiative and report back to an executive steering committee.

"There are three maintenance loops through which a weapon system travels in its lifetime," explains Mr. Harker. "The operations level or O level, conducted by field mechanics; intermediate level or I level, handled by in-theater bases or mobile shops; and the depot level. Each stage has increasingly complex capabilities and responsibilities. The mission is to minimize the turn-around time and maximize the time in service, which is also known as 'readiness'."

Future Looks Bright

Mr. Eaton appraises the future value of USCCG's public sector practice this way: "As recently as 1998, I worked for a competitor who had no federal business. Last year, they booked nearly $35 million in federal business. Knowing their capability and what they've been able to do in the last six years versus our capability, I think that we should be able to significantly exceed that accomplishment.

"We are an outstanding company that can make a significant contribution to the public sector."

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Paul Harker

Paul D. Harker is a senior operations manager at USCCG. During his 16 years with the firm, he has been successful in implementing continuous improvement programs with emphasis on cycle-time reduction, continuous flow, inventory management, effective resource utilization, customer service, demand flow processing, logistics, sales and operations planning, plant relocation and project management. He has conducted some 150 implementation projects with more than 50 clients around the world, including IBM, Delta Faucets, Northrop Grumman, Keystone International and Dow Brands.

Mr. Harker pursued undergraduate work in engineering and mathematics at Michigan State and Arizona State Universities. He earned a BA from Lincoln Christian College, followed by post-graduate work at Lincoln Christian Seminary. He was certified in Production and Inventory Management by the American Production and Inventory Control Society in 1989.

Progress Report

Callie Almond New BDE

Callie E. Almond has joined USCCG as business development executive for the state of Florida.

Formerly Ms. Almond was a partner with EFG, Inc., a workers' compensation brokerage and employee leasing firm in Tampa. Prior to that, she was vice president, North America, with XANSA, a London-based management consulting, systems integration and business process outsourcing firm. Her earlier experience included stints as director of US sales and principal consultant with Metzler and Associates; manager of industry marketing with Systems and Computer Technology; and marketing and sales manager/business development specialist with Enterprise Development, Inc., a venture development company.

Ms. Almond earned a bachelors degree in business administration from the University of Missouri and a masters in international business from the University of South Carolina. She is fluent in French and Spanish and has working knowledge of German and Japanese. She is a member of Rotary International and is a certified ISO 9000 internal auditor.

"With her extensive background with both medium-sized firms and billion-dollar organizations, as well as her depth of experience in marketing, program management, operations and negotiations, Ms. Almond brings a very broad perspective and set of skills to our own business development efforts," reports George Coffey, USCCG senior vice president for business development.

Shouldice Assumes New Duties

Senior Operations Manager David W. Shouldice assumes new responsibilities as regional sales manager with a focus on the automotive and metals industries in Ontario, Ohio, eastern Indiana, eastern Michigan, northern Kentucky and northern West Virginia.

Mr. Shouldice has worked with USCCG for more than 20 years, during which time he has developed special expertise in such areas as supply chain management, engineering management systems and chemical process management. He has been instrumental in working with clients in numerous industries throughout North America and Asia to improve operating effectiveness.

According to SVP, Business Development George Coffey, "David's in-depth knowledge of Lean, Six Sigma, Supply Chain Management and TPM, as well as his background in the automotive and metals industries, makes him the perfect resource to work with our prospects in these areas."

Mr. Shouldice is a university graduate with a background in business and economics. He resides in Ontario, Canada.

Six Sigma Basics

By Frank Esposto, Ph.D., Master Black Belt

Six Sigma, the quality improvement methodology made famous by Motorola in the 1980s, has generated a multitude of articles and books for good reason: *It has produced significant cost savings and reductions in waste for the organizations that have embraced it.*

Although its roots are in manufacturing and it continues strong there, it has expanded into such non-manufacturing industries as financial services, healthcare and food. Even the public sector is embracing the methodology because of its proven track record in private industry. (See related story, page 1.)

But what is it? Six Sigma is a revolutionary business process designed to significantly reduce organizational inefficiencies, which translates to increased bottom-line profits. It is a management philosophy that eliminates defects that take time and effort to repair, not to mention make customers unhappy. It does this by emphasizing understanding, measuring and improving processes.

What's In a Name?

Sigma (the Greek letter σ) is a statistical term that measures standard deviation and represents a measure of variation – the distribution around the mean – of any process or procedure. For management, this term is used to measure defects in the outputs of a process, and to show how far the process deviates from perfection. The statistical concept of the term "six sigma" means that processes are working nearly perfectly, delivering only 3.4 defects per million opportunities (DPMO). A process that operates at one sigma level will produce approximately 690,000 defects per million opportunities, or an output of only 31%. But a process operating at a three sigma level is producing approximately 66,800 DPMO, delivering an output of 93.3%. That's much better, but it's still wasting a lot of money and disappointing many customers.

Most organizations in the US are operating at three to four sigma quality levels and could be losing up to 25% of their total revenue. The basic idea of Six Sigma management is that, if the defects in a process can be measured, there is a systematic way to eliminate them and thus approach the desired quality level of zero defects.

Although Six Sigma is the goal, it is less important than the objective of pursuing continuous process improvement. Astute managers know that the real focus is on identifying defects and eliminating their root causes.

Five Phases of Six Sigma Methodology

Six Sigma methodology is universally recognized and defined as comprising five phases: Define, Measure, Analyze, Improve and Control (DMAIC).

Define: Define the project goals and customer (internal/external) deliverables.

Measure: Measure the process to determine current performance to quantify the problem.

Analyze: Analyze and determine the root causes of the defects.

Improve: Improve the process by eliminating defect root causes.

Control: Control future process performance.

Six Sigma methodology practitioners are called Black Belts and Green Belts. They are responsible for implementing process improvement projects within a business, and are knowledgeable and skilled in the use of the Six Sigma methodology and tools.

Black Belts typically complete four weeks of DMAIC in-class training and demonstrate mastery of the subject matter over a period of four or five months via completion of projects and an exam. Green Belts generally complete two weeks of training plus a project and exam within three months. Black Belts devote full-time to Six Sigma projects, but Green Belts normally spend only 25 to 50% of their time on those projects.

Master Black Belts are Six Sigma quality experts responsible for strategic implementations within an organization. They have the highest level of technical and organizational proficiency and are responsible for maintaining the integrity of the Six Sigma initiative.

They also provide leadership in integrating Design for Six Sigma (DFSS) into the business strategy and operational plans, as well as teaching other Six Sigma facilitators the methodologies, tools and applications in all functions and levels of the company.

Misconceptions Abound

There are many misconceptions about who can "do" Six Sigma. The common belief is that it can only be implemented in large corporations with big structures, deep pockets and a large resource pool. Not so! Large companies normally train one percent of their workforce as Black Belts and three or four percent as Green Belts. While large companies may have the luxury to pull from a large workforce, different approaches can be used for smaller companies with less than 500 employees.

USC Consulting Group does not offer a single approach. We seek a clear understanding of our clients' organization structures, cultures and goals, assess their opportunities and, then, tailor training to a handful of people to help drive improvement through Six Sigma

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as it applies to their businesses. We also train in and use Lean tools in conjunction with Six Sigma tools in order to help accelerate improvement. Remember, Six Sigma is not an absolute; it's a vision.

Lean and Six Sigma Synergy

Six Sigma has been extremely effective in reducing or eliminating defects, improving quality and reducing costs. It has not been as effective in reducing process lead times and variation in the amount of time required to complete a process. This is because most methods and tools associated with Six Sigma do not focus heavily on *time*. Any savings in time that result from Six Sigma projects is usually a by-product of reducing defects and the method itself.

In order to accelerate improvement, organizations must use both Lean and Six Sigma methods and tools simultaneously. It is the synergy between the two that helps organizations produce remarkable results. Six Sigma will bring processes under statistical control. Lean will improve process speed and reduce the need for invested capital. When these methods are used together, they are extremely powerful in improving the quality and speed of all types of manufacturing and transactional processes. USCCG draws from both Lean and Six Sigma to tailor a solution that's right for our clients.

Design for Six Sigma

Design for Six Sigma (DFSS) is used to design or redesign a product or service from the ground up. It is based on the idea that when Six Sigma quality is woven correctly into a product at the outset, life cycle costs are dramatically reduced and product reliability greatly enhanced. DFSS augments an organization's current product development process; it is not a replacement. When the essentials of Six Sigma have been mastered, organizations are ready to carry that improvement into the development and design of new products.

Like its parent Six Sigma, DFSS uses a disciplined set of tools to bring high quality to product launches. It begins with an analysis of an entire product development system to find gaps in the processes that are negatively affecting new product performance. It also addresses customer requirements that drive new product development. After gap analysis and customer requirements identification, DFSS kicks in with its own version of Six Sigma's DMAIC. One popular DFSS is called DMADV (Define, Measure, Analyze, Design and Verify):

- Customer requirements are gathered.
- The requirements are analyzed and prioritized.
- A design is developed.
- The requirements flow down from the system level to subsystems, components and processes.
- The product or service capability, including process capability, is tracked step-by-step and gaps between capabilities and requirements are identified and action items generated.
- A control plan is established.

When these methods are used together, they are extremely powerful in improving the quality and speed of all types of manufacturing and transactional processes.

Six Sigma vs. Design for Six Sigma

There are many similarities between Six Sigma and DFSS. The latter could be viewed as a logical extension of Six Sigma, but the initiatives are very different. The basic differences between Six Sigma DMAIC and all versions of DFSS are that:

- DMAIC is more about reacting, detecting and resolving problems. DFSS is more proactive, a way of preventing problems from occurring.
- DMAIC is for current products or services. DFSS is for the design of new products or services and processes in marketing, R&D and design.
- Cost savings obtained from DMAIC are easily and quickly quantified; however, savings resulting from DFSS are more difficult to quantify and can easily take a year or more after product launch before there is proper accounting on the impact of a DFSS initiative.

The new product development process resulting from DFSS will provide the roadmap to success. DFSS provides tools and facilitates teamwork to get things done efficiently and effectively. By applying those tools and methods, a predictable quality product is assured.

Frank J. Esposto, Ph.D., is a Master Black Belt and heads USCCG's Quality/ Six Sigma Practice. He has trained many Black Belts and Green Belts across numerous industries, where he has implemented Six Sigma initiatives in combination with Lean. To review the complete white paper written by Mr. Esposto, visit USCCG's web site at www.usccg.com.

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First we make it work. Then we make it last.®

For more information contact us at 800-888-8872 or www.usccg.com

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