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CONNECTING AMERICAN MANUFACTURING (CAM)

Roger Blumberg
MFG.Com, Inc.

DECEMBER 2013
Final Report

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1. Executive Summary

MFG.com applied more than twelve years of experience in sourcing to the US manufacturing supply base to implement and accomplish the objectives of the Connecting American Manufacturing (CAM) initiatives. Although a significant increase in the number of approved and participating suppliers grew to over 100 in the initial months after the first RFQs from DIBBS (DLA Internet Bid Board System) were ready to be released, the supplier community quickly became disenchanted with the program. Reasons for the diminishing interest include:

- Immaterial dollar amount of RFQs
- Lack of responsiveness from Defense Logistics Agency buyers
- Over 25% retracted or cancelled quotes
- Elongated award response time
- Insufficient Technical Data Packages (TDPs) and information to produce the part

While MFG.com expended significant effort and resources to engage the US supplier base, the results of the program left the suppliers who engaged in CAM frustrated and angry. MFG.com is a for-profit organization that has been working diligently to create a well-established marketplace for custom manufacturing parts since it was founded in 2000. Unfortunately, the flaws in the DoD procurement process not only had a negative effect on the supplier base, but also decreased the revenue and goodwill of the MFG.com marketplace. MFG.com promised the suppliers the opportunity to participate in the advertised \$80 billion spend with the DoD. However, ultimately, the suppliers were disappointed when they did not see the material opportunities and were left confused and discouraged with the lack of communication and inefficiencies.

Phase II of the program included the establishment of a reverse engineering center to source sole-sourced items. This type of program should provide the DoD with additional qualified suppliers for sole-sourced parts at more cost effective pricing. However, the process proved to be cumbersome and very inefficient. Thirty percent of the parts identified as available for reverse engineering have not been approved for the process. Further, incumbent suppliers have a large advantage over new suppliers, making it very difficult for new suppliers to become an approved supplier for the part.

As demonstrated by the quickly diminishing supplier interest in the program after a negative experience, suppliers reverted back to commercial work where processes are more defined and clearly resulting in a successful award of business. Suppliers do not want to waste their time and resources in a program that is confusing, unresponsive and void of a positive return. It is perceived that only the government as a non-profit organization can survive under these circumstances.

2. Who is MFG.com?

MFG.com is the world's largest manufacturing marketplace enabling buyers and suppliers of custom manufactured parts to interact in an online portal. MFG.com creates a more efficient sourcing channel through the use of a "many too many" marketplace model. From collaboration on specifications and designs to awarding and order monitoring, MFG.com allows the entire sourcing process to take place in one location. MFG.com currently serves over 135,000 buyers and over 190,000 suppliers globally in the sourcing of manufactured products. Buyers ranging from independent product design firms to global OEMs come to MFG.com searching for an easy-to-use sourcing tool that can help them quickly and easily find suppliers that have the expertise, credentials and capacity to meet their sourcing needs.

It is through the MFG.com marketplace that buyers are able to reduce sourcing time and effort while delivering lower prices through greater competition. MFG.com helps suppliers gain access to opportunities that closely match their capabilities, which helps them increase sales and expand into new markets.

The business model for the manufacturing marketplace is subscription based for suppliers who use the platform to identify potential customers and manufacturing opportunities. Buyers are able to search for suppliers and post RFQs in the marketplace for free. However, MFG.com does offer enterprise buyers the opportunity to pay a fee for access to a complete e-sourcing and supply chain management solution in addition to access to the manufacturing marketplace. The enterprise platform allows the sourcing of products and management for an entire supply chain in one web-based portal.

3. Scope of Work for Connecting American Manufacturing (CAM)

3.a. Phase I

To accomplish the objectives for Phase I of the CAM initiative, MFG.com utilized more than twelve years of experience of increasing supply chains for large buyers of manufactured items, increasing responses to solicitation requests for buyers, providing an online purchasing system that results in lowered supply costs, and decreasing overall procurement timelines. The objectives as defined below under this program have historically been achieved by MFG.com for many Fortune 500 organizations. Further, MFG.com partnered with a subcontractor that brought substantial experience in mass-communication to promote new programs launched in the federal market. The subcontractor's personnel drew upon directly applicable experience in the manufacturing industry, governmental research and development projects. The specific objectives of the CAM program in Phase I were to define, design and deploy a capability to accomplish the following:

- Develop and pilot tools and practices causing a great number of U.S. companies to bid on DoD business;
- Improve the capability of U.S. suppliers to participate and thrive in a digital enterprise;
- Develop advanced capabilities for identifying suppliers ("sourcing") and matching capability and capacity to needs; and
- Become self-sustaining, with potential to scale-up beyond DoD markets and significantly expand national and global access to (and demand for) U.S. manufacturing capacity.

3.b. Phase II

Given MFG.com's deep sourcing manufacturing experience in providing the world's largest manufacturing marketplace combined with the only e-sourcing platform designed specifically for sourcing within the manufacturing space, MFG.com was readily able to develop a process to establish a reverse engineering center to source sole-sourced items. The primary objectives of Phase II included:

- Develop an effective process for ESA (Engineering Support Activity) representatives to partner with DLA representatives to reduce cost and create technical data packages for sole-sourced items
- Develop a more efficient method for suppliers to review sole-sourced parts to determine their ability to manufacture
- Determine if a supplier should pursue the creation of the Source Approval Request package through the DLA

4. Key Initiatives

4.a. Phase I

Simplification of the DIBBS (DLA Internet Bid Board System) Sourcing Process

MFG.com began by seeking to understand the current government sourcing process through the DoD sourcing platform, DIBBS. Sourcing through DIBBS proved to be a confusing and extremely time consuming process for suppliers. MFG.com hired an experienced DIBBS consultant, Lee Bosma, for about 90 days, to collaborate with senior leadership within MFG.com, to understand and simplify the DIBBS sourcing process and to push DIBBS RFQs into the MFG.com marketplace.

One of MFG.com's initial observations included an awareness of inefficiencies of the DIBBS search features utilized to locate a desired RFQ. The DIBBS RFQs are classified by FSC (Federal Supply Codes) which identifies a part by type such as "Aircraft Parts" or "Door Frames, Metal." Although this may seem intuitive, a supplier has certain capabilities to make a part and in order for the supplier to understand whether his capabilities match the required capabilities to make a DIBBS part, the supplier has to open and review the solicitation in detail. At a high level, MFG.com was able to review the solicitation and determine the capability category on behalf of the supplier and place the part in the correct category prior to placing the part in the MFG.com marketplace.

Further, MFG.com created a standard template for the suppliers to input their quote information. It contained extracted information from the original solicitation, but displayed the relevant data in a more user friendly format. This simplification step saved the suppliers significant time and resources. The consultant that MFG.com utilized to assist with the DIBBS simplification process was a former supplier to the government and had previously managed the DIBBS sourcing process for his prior company. He indicated that historically a response to a solicitation including the time it took to find a solicitation with your company's matched capabilities and completing the required paperwork averaged about 4 hours. The simplification process that MFG.com completed for the suppliers reduced that average time frame by more than half to about 1.5 hours.

In addition, all DIBBS solicitation drawings were required to be downloaded in a c4 format, or compressed and locked file, which was then converted to a PDF or a file format that provides an electronic image of text or text and graphics that looks like a printed document and can be viewed, printed, and electronically transmitted. A mass converter is required to convert multiple files at once. Most suppliers do not have a c4 mass converter. To help with this conflict, MFG.com purchased the c4 mass converter software to make it available to the suppliers.

Also, a single RFQ DIBBS solicitation contains many references to Mil-Specs (Military Standard Specifications). However, the referenced Mil-Specs are not included in the solicitation, leaving

the supplier to hunt for the referenced documents on their own. As part of the simplification process and ease of use for the supplier, MFG.com located and attached the pertinent Mil-Specs to RFQs available in the MFG.com marketplace. Further, MFG.com found that some of the Mil-Specs referenced in DIBBS solicitations were not applicable to that particular solicitation. In addition, once a supplier locates a referenced Mil-Spec often the document is very voluminous, confusing and virtually impossible to interpret and respond to appropriately. For example, most solicitations contain very specific packaging requirements and often reference a Mil-Spec. Appendix F2 contains a link to MIL-STD2073-1D which is a 212 page packaging Mil-Spec. MFG.com provided a Packaging Mil-Spec summary that simplified the 212 page Mil-Spec and directed the suppliers to specific pertinent locations within the packaging Mil-Spec (refer to Appendix F1).

Full Court Press to Increase Approved Supplier Base

After simplifying the DIBBS RFQ process, the race was on to motivate suppliers to become an approved government supplier and become actively involved in the program.

First, MFG.com determined there was a series of steps included in becoming an approved supplier. MFG.com performed these steps and found it took about 2 hours to complete the steps and submit the required paperwork. MFG.com simplified this process for the suppliers and prepared a summary of the process including the links to pertinent information and data. This simplification process by MFG.com reduced the 2 hour process to about 45 minutes (refer to Appendix D2).

Next, MFG.com put forth a well-developed marketing plan focused on educating the large MFG.com supply base on the benefits of becoming a supplier for the DoD as well as bringing in new supplier members into the program. Below is a list of the various marketing efforts and campaigns hosted by MFG.com:

Table 1 List of Various Marketing Efforts and Campaigns

Program	Date	Reach
Articles & Radio		
Interview on WTOP Radio, Washington, DC	9/30/2012	1.5 Million Unique Listeners/Week
Interview on Federal News Radio, Washington, DC	10/9/2012	3.2 Million Pageviews/Month
Byline Article, Manufacturing.net	11/14/2012	377,000 Pageviews/Month
Interview on WDTW Radio, Detroit	11/19/2012	295,000 Listeners/Month
Interview on WJLA TV, Washington, DC	12/2/2012	5,006,850 Broadcast Population
Interview on WOWO Radio, Indianapolis	12/20/2012	85,000 Listeners (5+ min for 7:35am slot)
Email & Direct Mail Campaigns		
CAM Announcement Email Campaigns		
MFG.com Paid Suppliers	8/2/2013	873 Paid Suppliers
MFG.com Buyers	8/15/2012	12,786 U.S. Buyers
MFG.com Prospect Suppliers	9/6/2012	30,987 Prospect Suppliers
MFG.com Government Buyers	9/6/2012	311 Buyers with .mil & .gov Emails
HUBZone (Historically Underutilized Business Zones) Email Campaigns		
MFG.com Prospect Suppliers	9/18/2012	19,529 Prospect Suppliers
MFG.com Paid Suppliers	9/18/2012	784 Paid Suppliers
Small Business Email Campaigns		
MFG.com Prospect & Paid Suppliers	10/3/2012	19,638 Prosp. Supp. & 784 Paid Supp.
Direct Mail Campaign	11/13/2012	37,848 Suppliers
Press Releases		
CAM Press Release	8/2/2012	457,604 Unique Vis./Month; 3,310 Views
Other		
Visibility at Analyst Firm: Spend Matters	8/3/2012	70,000 Unique Vis./Month

The marketing efforts made by MFG.com to bring visibility to the CAM program began to pay off as the number of interested suppliers increased (refer to Appendix E1 for Monthly CAM Metrics Report – Oct 2012). Initially, to kick off the MFG.com and DoD contract for the CAM program, a press release (refer to Appendix C) was released on Businesswire in August 2012 to make the announcement. This press release generated the highest increase in MFG.com supplier registrations during the entire program, with 125 registrations the day the press release was distributed. Further, the direct mail campaign (refer to Appendix B3) was mailed to 37,848 suppliers and created a significant spike in the number of supplier registrations, with 70 total MFG.com supplier registrations the day of the mailer.

In addition to the five interviews on various TV and radio stations, MFG.com secured an article with Manufacturing.net called “Transforming the Relationship between Manufacturers and the DoD”, which received 755 pageviews. Further, the HUBZone email campaign was sent to 784 of the MFG.com paying suppliers and produced very positive results, with a 20.7% open rate and 3.7% click through rate.

Additionally, MFG.com created multiple pieces of content marketing used at tradeshow, prospect visits, events, email campaigns and on landing pages to educate suppliers about the CAM program. The CAM Fact Sheet (refer to Appendix D1) and Supplier Resource Guide (refer to Appendix D2) were also created to provide insight and clarity for suppliers looking to conduct business with the DoD.

Further, MFG.com hosted two events focused on bringing awareness to the local supply base and urging suppliers to engage in the program. The following highlights the two events:

- July 2012 – Manufacturing Connect, Atlanta, GA
 - MFG.com hosted a Manufacturing Connect Event in Atlanta so that suppliers from all over the state of Georgia could hear from some of the industry’s leading thinkers about manufacturing trends and how to do business with the DoD.
 - DoD’s CAM Project Engineer, Andrea Helbach, introduced the CAM program to the suppliers and explained how the program would help reduce existing barriers in doing business with the DoD.
- November 2012 – National Tooling and Machining Association (NTMA) Sourcing Fair, Nashville, TN
 - NTMA is one of the nation’s leading trade associations for small- to medium-sized manufacturers. NTMA helps their 2,000 members of the US precision custom manufacturing industry achieve profitable growth and business success in a global economy through advocacy, advice, education, networking, information, programs and services.
 - MFG.com’s Program Manager and the DoD’s CAM Project Engineer, Andrea Helbach, presented the CAM program at the annual NTMA conference.
 - This conference was attended by several hundred machine shop owners. The purpose of this presentation was to drive enrollment in the CAM program.

Further, a case study was created on Ottinger Machine Company to celebrate and bring light to the first MFG.com manufacturer to be awarded DoD business (refer to Appendix D3). Jeffrey Ottinger, Ottinger Machine Company Owner, said, “Although the tough economy prompted us to start exploring new avenues for business opportunities, we didn’t consider pursuing government work until we learned about the CAM program and MFG.com’s support.” Ottinger continues, “Once you understand the process, bidding on DoD opportunities is easy. But you have to do your homework. DoD solicitations often close quickly, so you have to move quickly. MFG.com makes it seamless.”

Given all of these efforts, approved government suppliers in the MFG.com marketplace increased rapidly to 45 by September of 2012 at the onset of the program when MFG.com was ready to release the initial DIBBS RFQs. Suppliers continued to become approved government suppliers through the early months of the program, ramping up to a total of 130 by December of 2012 and then increasing slightly more to 135 by the end of February 2013. The leveling off in the additional number of approved suppliers was due to a number of factors as discussed below.

Unable to Find DoD and DIBBS Material Spend

After simplifying the DIBBS sourcing process for suppliers and new supplier registrations as well as expending significant marketing efforts to educate and reach potential suppliers, MFG.com initiated efforts to pull active solicitations from DIBBS and place them on the simplified MFG.com platform. One of the key metrics delivered to MFG.com that drove the team's participation in the CAM program was the estimated \$80B the DoD spends per year on spare parts. MFG.com saw the CAM program as an excellent opportunity to connect the MFG.com supply base to this attractive volume of spend. However, day after day and week after week, dedicated resources at MFG.com became disenchanted and were unable to find an appropriate spend for the suppliers. Billions of dollars sourced through DoD were flaunted during the solicitation process of the CAM program, however, on average only a few thousand dollars per RFQ were found. The chart below outlines that 78% of the RFQs sourced and awarded during the program had an RFQ value of \$5,000 or less. Awards with a value of \$5,000 to \$100,000 were 12% of total RFQs sourced. Dedicated MFG.com resources would spend hours searching the DIBBS platform for RFQs that would resonate with new suppliers and found themselves rejoicing when they found an RFQ over \$5,000. On rare occasions (1% of MFG.com solicited RFQs during the program), a RFQ over \$100,000 was found in the DIBBS system by MFG.com resources. Obviously, a new supplier needs to feel that doing business with the DoD will reap positive margins and rewards in the future. If the supplier believes that only a few thousand dollars per RFQ will be awarded, the supplier will likely stop seeking government opportunities and continue with other more profitable commercial opportunities. The following shows a chart (Figure 1) of DoD RFQ award values during the program:

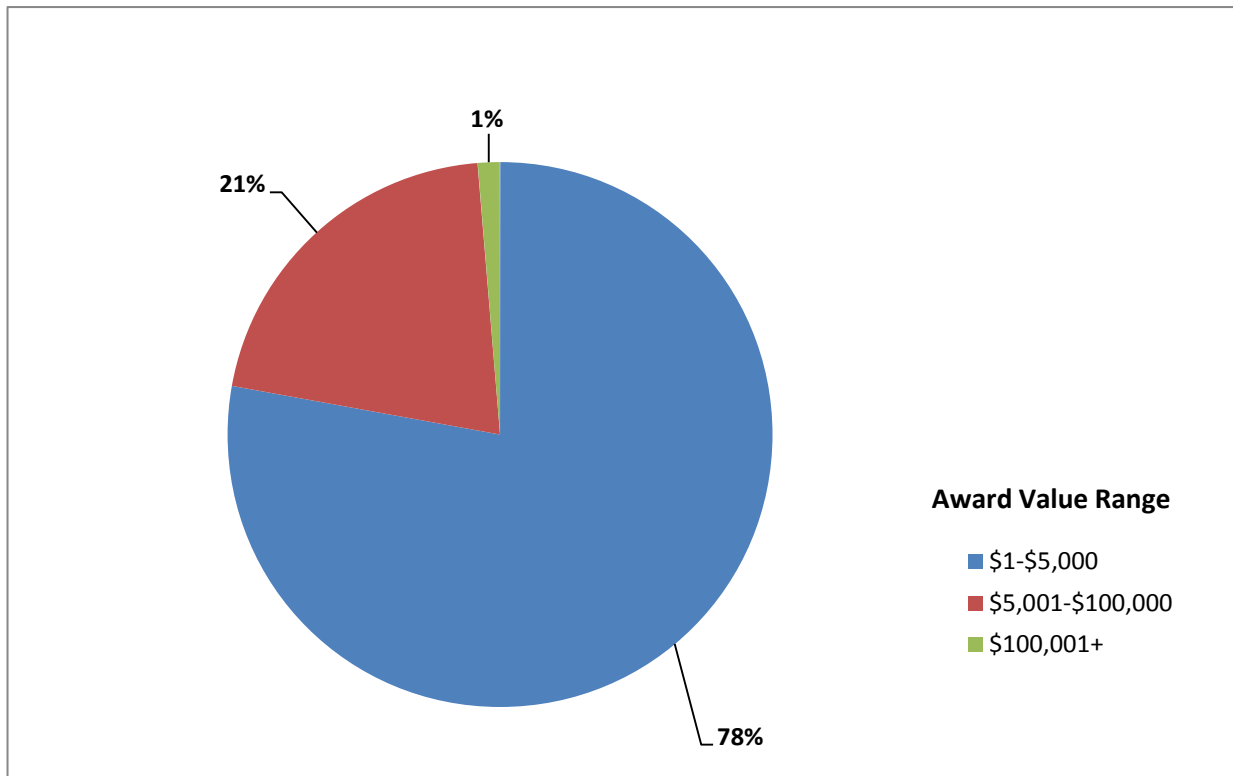


Figure 1 DoD RFQ Award Values

In addition to the marketing campaigns listed above, MFG.com initiated and hosted the following governmental meetings and CAM events in an effort to increase awareness and support of the program, solicit assistance from certain governmental agencies to aid in finding the large spend promised from DIBBS and to gain support of MFG.com's efforts to integrate with DIBBS:

- July 2012 – DLA Small Business Meeting, Columbus, OH
 - MFG.com's Senior Vice President and Program Lead as well as the DoD CAM Project Engineer (Andrea Helbach) supported a meeting with the Columbus DLA Small Business and Acquisition leadership team.
 - The purpose of this meeting was to educate the Columbus team on the CAM program as well as to work towards securing parts that MFG.com could place on the MFG.com marketplace. MFG.com was also using this meeting as a way to secure more contacts that could help MFG.com with DIBBS integration.
 - Findings/outcome: As a result of this meeting MFG.com learned about the TKO trainings provided by the DLA in Columbus which were attended by MFG.com. The DLA in Columbus also introduced us to the Sourcing and Reliability team in Richmond, VA which eventually led to the reverse engineering project.
- July 2012 – DLA Small Business Meeting, Ft. Belvoir, VA

- MFG.com's Senior Vice President, Program Lead and Marketing Lead as well as the DoD's CAM Program Manager (Brench Boden) supported a meeting with the DLA's Director of Small Business Programs (Amy Sajda).
 - The purpose of this meeting was to educate Ms. Sajda and her team on the CAM program as well as to work towards securing parts that MFG.com could place on the MFG.com marketplace.
 - Findings/outcome: As a result of this meeting Ms. Sajda was able to coordinate the J3/J7 meeting that took place in October 2012.
- July 2012 – U.S. Army Aviation & Missile Command Meeting, Huntsville, AL
 - MFG.com's Program Manager as well as Dr. Kenneth Sullivan of the University of Alabama in Huntsville (government contractor for CAM program) met with the U.S. Army Aviation and Missile command Small Business team.
 - The purpose of this meeting was to educate them on the CAM program as well as to work towards securing additional parts to place on the MFG.com marketplace.
 - Findings/outcome: There was not further communications or follow up from either of the two meetings the team assembled at the Aviation and Missile Command Center. The team's hope was to secure parts to work on helping to source but at no point did the team receive any parts lists to assist with.
- July 2012 – Georgia Procurement Technical Assistance Center (PTAC), Atlanta, GA
 - MFG.com's Program Manager met with the Georgia PTAC's Leadership Team.
 - The purpose of this meeting was to educate the Georgia PTAC Leadership Team on not only the CAM program but also to determine if PTAC could provide assistance with DIBBS integration and identification of parts that MFG.com could add to the MFG.com marketplace.
 - Findings/outcome: The Georgia PTAC was very helpful in providing direction to the MFG.com. They provided MFG.com with all of the contact information the team needed within the DIBBS team to satisfy many of the technical issues the team was experiencing.
- August 2012 – TKO Training, Columbus, OH
 - MFG.com sent a member of their technology team to TKO training in Columbus in an effort to learn more about the government procurement process and to help validate that the team's process for distributing RFQs via the MFG.com marketplace was accurate and within government guidelines.
 - Finding/outcome: While these training sessions are intended for potential DoD suppliers the team found this training to be very helpful as the team got a solid understanding of the DoD procurement process and what award decisions are based on.
- September 2012 – TRIAD Meeting, Washington, DC
 - MFG.com's CAM Program Manager attended the annual National Defense Industrial Association (NDIA) TRIAD meeting in an effort to meet with the various branch level DoD leadership members.

- Finding/Outcome: Attending this meeting helped the team secure a meeting with both the department of Commerce Small Business Leadership Team as well as the U.S Air Force Small Business Leadership Team.
- October 2012 – U.S. Department of Commerce, Minority Business Development, Washington, DC
 - MFG.com’s CAM Program Manager met with the U.S Department of Commerce Minority Business Development Team in order to educate them on the CAM program and to work towards a way in which the MFG.com marketplace could be used as a vehicle to help minority businesses secure work with the DoD.
 - Finding/Outcome: The team was asked to contact the Atlanta Minority Business Development Agency which was involved in the advanced manufacturing sector. After several outreach efforts on the team’s part and a cancelled meeting by the MBDA there were no results from the team’s efforts.
- October 2012 – J3/J7 Meeting DLA, Fort Belvoir, VA
 - MFG.com’s Senior Vice President, DoD CAM Program Manager, Brench Boden, and MFG.com’s Marketing Program Manager met with the DLA’s J3 and J7. This meeting came about as part of the previous meeting with the DLA’s Director of Small Business Programs.
 - This meeting was used as a platform for the DoD’s CAM Leadership Team to educate the J3 and J7 on the program and to express the team’s initial findings with the program. It was also used as a way to escalate the team’s concerns regarding the lack of support with the DIBBS integration effort and the lack of available parts for the MFG.com suppliers to bid on.
 - Finding/Outcome: While this meeting did not provide any further assistance in helping MFG.com secure parts for the CAM project, the team was successful in having all of the team’s issues associated with the DIBBS integration solved. The team found the level of assistance and support from the DIBBS help desk to significantly improve after this meeting.
- October 2012 – U.S. Air Force Office of Small Business, Washington, DC (Pentagon)
 - MFG.com’s Senior Vice President and Program Manager as well as the CAM Leadership attended a meeting with the Office of the Director of Small Business Programs for the U.S Air Force. This meeting came about as part of the team’s attendance at the TRIAD meeting.
 - The purpose of this meeting was to educate the U.S. Air Force on the benefits of the CAM program and to work towards getting help from the Air Force in securing more parts for the CAM program and the MFG.com marketplace.
 - Finding/Outcome: While the U.S. Air Force Office of Small Business was very receptive to working with MFG.com and mentioned ideas for where they could get MFG.com’s help the team did not get any follow up from them or assistance.
- October 2012 – Sourcing & Reliability Meeting, Richmond DLA, Richmond, VA
 - MFG.com’s Senior Vice President and Program Manager attended a meeting at the Richmond DLA. This two-part meeting was the first with the Sourcing and Reliability team who manage the sole-sourced parts program.

- o The purpose of this part of the meeting was to educate the Sourcing and Reliability Team on the CAM Program and to see what MFG.com could do to secure these historically sole-sourced items for the MFG.com marketplace. It was this meeting that created the idea for the reverse engineering portion of CAM Phase II. The team also met with the Richmond DLA Leadership Team. The DoD's Director of Small Business helped us secure this meeting in which the team educated the DLA's acquisition team on the CAM program and walked them through how MFG.com was approaching the CAM program.
 - o Finding/Outcome: The Sourcing and Reliability Team was interested in getting MFG.com's assistance with their sole-sourced parts list. From the team's perspective, the parts that the Sourcing and Reliability Team needed help with were ideal for the CAM project and for the MFG.com marketplace. While the Sourcing and Reliability Team were interested in working with MFG.com they struggled to get any helps from both the ESA's as well as the Depots that would need to be part of the process.
- October 2012 – Additional TKO Training, Columbus, OH
 - o MFG.com sent a member of their technical team to the TKO training in Columbus. The purpose of attending was for the MFG.com team to continue to get further education on government procurement practices but to also have questions answered about MFG.com's interpretation of government procurement and to make sure that the CAM program was shortening the procurement process without skipping any mandatory and critical steps.
 - o Finding/Outcome: Based on the success from the first TKO training the team decided to send a member of the technical team to this training. This employee showed up with an extensive list of questions he had based on his first several months of interaction with the DoD. He walked away from this training with answers to all of his questions and provided feedback that these training were an exceptional educational opportunity.
- December 2012 – GA PTAC, Atlanta, GA
 - o MFG.com's Program Manager met with the GA PTAC leadership to discuss any additional sources for uncovering parts and opportunities for the DoD Marketplace.
 - o After struggling to find quality opportunities on DIBBS the team turned to the GA PTAC to help us try and uncover different sites and locations where additional opportunities may reside.
 - o Finding/Outcome: The primary finding from this meeting is that all of the potential sources for DoD parts had already been identified by MFG.com. As much as the team had wanted to discover other locations, the GA PTAC confirmed the team had turned over every rock in search of potential parts to help the DoD Source.

Efforts to Integrate with DIBBS and Ultimate Abandonment of this Effort

Recommendations from governmental agencies as noted in the meetings outlined above as well as support from the program office urged MFG.com to integrate with the DoD sourcing platform DIBBS. All indications led MFG.com to believe that this effort would provide a rapid connection with the DoD governmental sourcing platform. Designated MFG.com resources hunted and researched solicitation opportunities within the DIBBS system. A full-time MFG.com resource working 8 hours per day could find and input about 2-3 solicitation opportunities per day. MFG.com believed the successful integration with DIBBS would increase that statistic by 3 or 4 times.

However, MFG.com encountered many roadblocks and finally gave up the effort after several months of no forward movement technically as well as unrelated difficulties within the DLA and significantly lower spend opportunities as previously discussed for the suppliers. The following outlines the roadblocks faced during this effort:

Failed Technical Integration Efforts

MFG.com made a significant financial and human capital effort to integrate MFG.com with DIBBS. MFG.com hired an outside consultant, Chris Powell, to assist with the DIBBS integration as MFG.com was unable to obtain assistance from the DIBBS technology team. Mr. Powell had prior technical history and experience in successfully integrating with the DIBBS system.

Numerous phone calls to various DIBBS technical team members proved unsuccessful in soliciting help and assistance with the integration. Either the contact did not return the phone call or upon a return call it was determined the contact did not have the right expertise to assist with the initiative.

Unable to Locate Appropriate Spend Level, Leading to Supplier Abandonment

MFG.com was well into the DIBBS integration efforts when it was determined that DIBBS offered very little spend that appealed to the MFG.com supply base. The feedback from the MFG.com supply base was that in most cases, the value of the opportunities available on DIBBS was greater than the supplier's costs to even quote the parts.

Chart 1 further supports this notion, as an overwhelming majority, or 78% of the opportunities available in DIBBS were valued under \$5,000 and only 1% was greater than \$100,000. As noted previously, MFG.com struggled to see how the DoD has opportunities for suppliers that come even remotely close to the advertised annual spend of \$80B.

DIBBS and DLA Missteps Diminish Supplier Interest

DIBBS System Outage Concerns

During the initial ramp up of new supplier approvals in September and October of 2012, the DIBBS system experienced multiple daily outages for extended periods of time, often two and three hours per day, that proved to be frustrating to the approved suppliers. Although the MFG.com system was never down for the approved suppliers participating in the program, the MFG.com team was unable to research and pull solicitations from the DIBBS system during outages.

Chart 2 below demonstrates the negative effect on the number of RFQs available for quote as well as the number of quotes and unique suppliers quoting during the outage periods. The number of RFQs available for quotation decreased from 217 in August 2012 to 146 in September 2012 and down further to 111 in October 2012. Chart 2 further demonstrates the recovery of the DIBBS system in November 2012 when the number of RFQs available increased to 143.

Likewise, the number of quotes decreased during the DIBBS system outages goes from 79 in August 2012 to 25 and 26 in September 2012 and October 2012, respectively. Further, the unique suppliers quoting during those time frames decreased from 17 in August 2012 to 7 in October 2012. As illustrated by the negative statistics (Figure 2), approved suppliers began to lose confidence in their ability to successfully win business with the DoD and began to opt out of the program. The DIBBS system outages further encouraged MFG.com to abandon integration efforts.

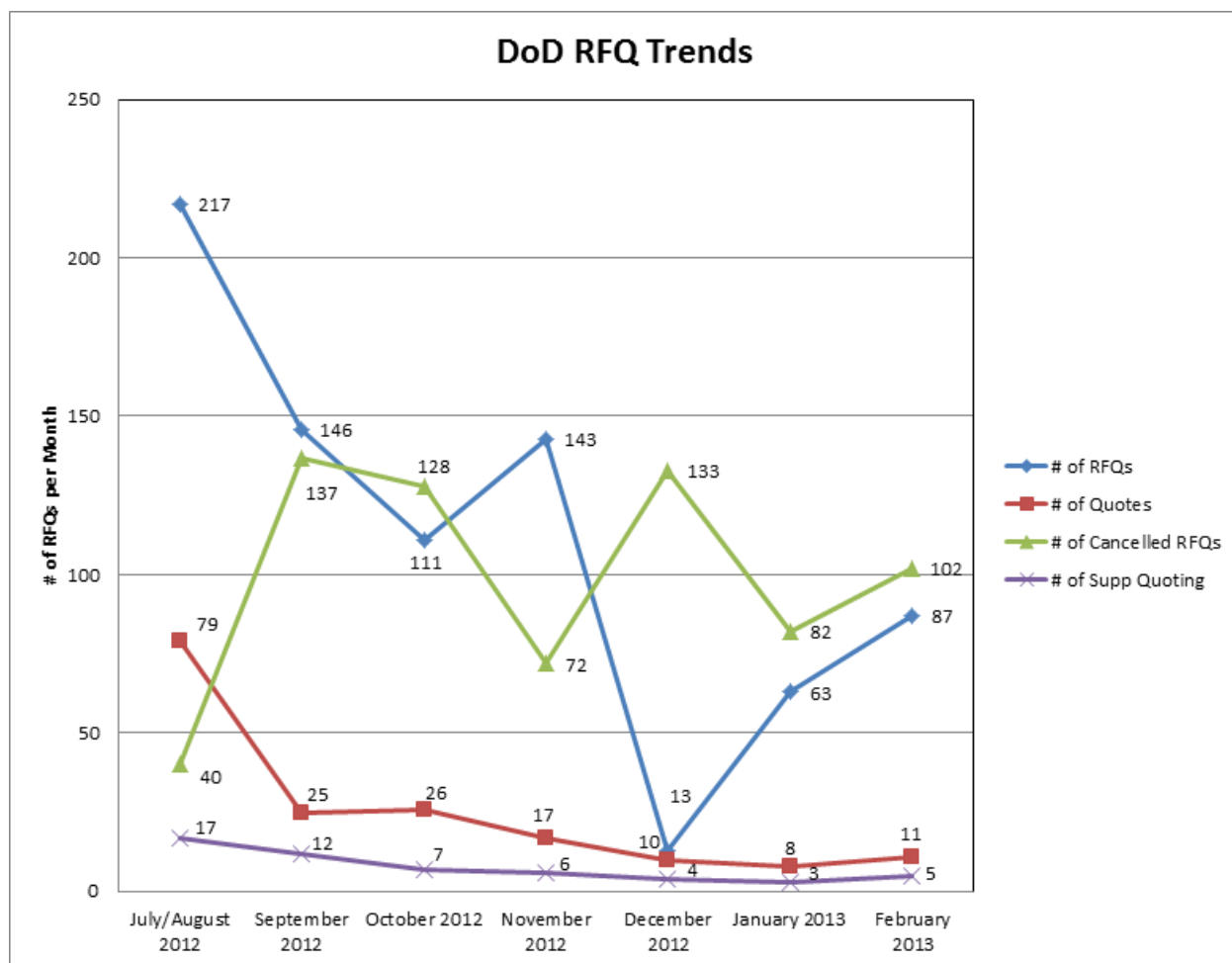


Figure 2 DoD RFQ Trends

Mid-October 2012 until November 2012, the DIBBS System incurred significant downtime. During this downtime, Mfg.com personnel would get logged off the system every 10 to 15 minutes, which resulting in the inability to search for RFQs or download relevant drawings and documents.

Threat of Sequestration

The threat of sequestration and furloughs during December 2012 further served to discourage supplier interest in the program. As noted in Chart 2 above, RFQs available for quote plummeted from 143 in November 2012 to 10 in December 2012. Due to sequestration discussions, DLA representatives posted very little solicitations during the period; thus, further decreasing supplier confidence and activity. As noted in Chart 2, the number of quotes reduced to 10 in December 2012 and the number of active suppliers quoting reduced to 4. Further, Chart 2 depicts the fact that although the number of RFQs available for quoting began to recover in January and February of 2013, supplier confidence in the program never recovered. The additional points below outline further reasons why the suppliers abandoned the program.

Retracted Quotes

Suppliers became further discouraged with the program as high percentages of RFQs released were retracted or cancelled by the government. Suppliers witnessed a 25.8% cancellation or retraction rate of the RFQs sourced through the MFG.com marketplace. Conversely, commercial RFQs typically have less than a 10% retraction rate.

To further discourage the supplier, an inquiry to a DLA buyer regarding the retraction was often not answered. This topic is discussed in the next point below. In addition, retractions were made at various stages during the quoting process. Often, an RFQ was cancelled after a supplier had already submitted their quote or the RFQ would be removed while a supplier was in the process of preparing their quote for submission. On average, each RFQ required one to five hours to complete and U.S. suppliers viewed these retractions as a substantial waste of resources and time.

Lack of DLA and Buyer Feedback

Month after month, MFG.com demonstrated the fact that the DoD quoting platform is easy to learn by utilizing the simplified process in the MFG.com marketplace. This is demonstrated in the overwhelming majority of suppliers placing multiple bids promptly after becoming a registered member of the CAM program, as illustrated in Chart 2 above. However, despite the efforts MFG.com made to make the system more user friendly, those efforts cannot make up for the lack of effective communication. When participating suppliers made inquiries to DLA buyers, they repeatedly experienced unreasonable delay or no response at all.

Further, suppliers experienced an extremely lengthy award timeline which served to further hinder their ability to successfully conduct business with the DoD. When a supplier has interest in becoming a DoD supplier, gains momentum, begins quoting on DoD projects, but then the number of RFQs are either retracted or significantly decreased, time and time again, suppliers feel their time has been wasted and they could have put effort towards a RFQ that would actually reap an award. This trend is prevalent in Chart 2 above as a significant amount of both quotes and unique suppliers abandoned the program. Additionally, Table 2 below demonstrates the extremes between commercial sourcing and DoD/DIBBS sourcing.

Table 2: DoD & Commercial RFQ Comparison

Item	DoD/DIBBS	Commercial
Average Length of Documents	40+ Pages	2-3 Pages
3D Model Provided	Rarely	In Most Cases
Consistent Placement of Key Data	No	Yes
Requisition Easily Understood	No	Yes
All Necessary Info in a Single Packet	No	Yes
Average Time to Assemble & Read RFQ	2.25 Hrs.	10 Min.
Percentage of RFQs Awarded	74%	95%
Average Time RFQ is Open	90 Days	14 Days
Average Value	<\$5,000	\$1,000-\$1.5M
Buyer Access and Feedback	No	Yes

The size range for commercial opportunities can vary greatly. Smaller opportunities are often one-two thousand dollars and larger opportunities can go well into the millions.

Without the full support of the DLA, MFG.com is unable to overcome these hurdles. The MFG.com team worked hard to overcome the DoD challenges so that the suppliers would have a positive experience. Unfortunately, little cooperation from the DLA meant that the suppliers were exposed to many challenges that created a negative experience for them. As supplier questions and issues arose, MFG.com continuously reached out to DLA representatives with a mix of phone calls and emails to ask questions on behalf of the suppliers. After making over 50 attempts to reach members of the DLA regarding retracted quotes, the MFG.com team received only two returned calls or responses. The remaining inquiries were unanswered.

Further, during the course of the program, less than 10% of all inquiries to the DLA from the MFG.com team received responses within five business days. Despite the MFG.com customer service team's efforts to act as the liaison between the DLA and the suppliers, our efforts were ultimately ineffective because the DLA was so unresponsive. The DLA often took three to four days to respond to questions if they got back at all. Sometimes it would take the DLA so long to respond that the RFQ solicitation already expired.

As stated, the lack of response from the DLA frustrated the suppliers. Often the supplier had questions about an RFQ specification but was unable to place their quote until those questions were answered. As a result of these challenges, many new suppliers completely backed out of the program and MFG.com. Overall during the program, MFG.com only made one award to a supplier. This very low rate of awards is the direct result of the inefficiencies the suppliers encountered during the process. Ultimately, suppliers lost the desire to spend additional resources and time quoting on work that was perceived as unattainable.

Duplicate Parts Posted

There were over 15 instances of the same part and quantity open for quoting through different solicitations simultaneously. This caused further supplier confusion and distrust in the open

bidding process because it could not be determined if these were extra parts needed or duplicative error. Combined with a lack of communication from the government buyers, duplicate parts open for quoting increased the level of skepticism that the commercial supply base (Fortune 1000 Manufacturing Companies) had regarding the open RFQs. Also, the frequent retraction of quotes magnified this issue and left suppliers feeling there was not a true need for the part or if there was, it could not be defined by the sourcing contact for the government. Overall, posting multiple solicitations of the same part erodes the confidence level that suppliers have with an organization.

Lack of Award Feedback

During the tenure of the program, numerous contracts were not awarded for a significant period of time after the solicitation close date. Moreover, many solicitations were cancelled or retracted long after their close date. As of November 2013, there are still 12 un-awarded active government solicitations that are significantly past their close date. In fact, half of un-awarded RFQs are over 90 days past their close date.

In the commercial space, 95% of all solicitations lead to an award. In addition, these contracts are generally awarded within five business days of the solicitation close date. To wait more than three months for information on a contract award without any follow up communication is unacceptable to the supplier community. However, the issue of lengthy award timelines can be overcome through ongoing communication between the DLA and the supplier base. As noted previously, many suppliers that signed up under the CAM program lost interest in the process and reverted back to the more reliable commercial space.

Insufficient and Inconsistent Technical Data Packages (TDPs)

During the process, the team discovered sporadic and inconsistent technical data packages (TDPs) associated with the projects being sourced on DIBBS. Over 90% of the TDPs did not contain 3D computer aided design (CAD) data. 3D CAD data significantly reduces ambiguity, virtually eliminates errors and accelerates the process of generating the computer numerical control (CNC) code used to drive the machine tools. The 3D CAD file is imported into computer aided manufacturing (CAM) software and the CNC code is generated with just a few inputs and decisions by the CAM user. Creating the 3D CAD model manually is laborious and prone to error. The absence of 3D CAD models may cause many suppliers to not submit a bid due to the ambiguity and risk. In the commercial sector, it is common practice that a project being sourced contains a 3D model and a detailed 2D drawing. A small but growing percentage of companies are providing 3D models with part manufacturing information (PMI) embedded as metadata. Further, quoting based on a 3D CAD is a very fluent process whereas quoting from 2D CAD or legacy non-CAD data is time consuming.

Ambiguous technical data is one contributing factor to only 21% of the DoD RFQs sourced through this program receiving competitive bids. As a reference, 93% of RFQs receive competitive bids for commercial customers using the MFG.com marketplace. The disparity between the percentages of DoD RFQs receiving bids as compared to commercial RFQs

receiving bids highlights the importance of high quality technical data. As a result, enticing new suppliers to submit competitive bids to DoD RFQs is more challenging than commercial RFQs.

Additionally, the lack of control data and more importantly 3D CAD creates hurdles for advanced suppliers to participate in government work. As supported in an *American Machinist* article, "3D CAD has Become a 'Must Have'" (refer to Appendix F3); 3D CAD has become a mainstream requirement for efficient manufacturing. Unfortunately, over 90% of the RFQs from the DoD lacked 3D CAD data. Because of this, suppliers are discouraged from quoting because so much additional time is involved to review the parts without this data.

Biased Awarding System to Supplier Incumbent

The DLA uses a combination of "best price" along with an ABVS (Automated Best Value System) score in the evaluation of a vendor's offer. The ABVS is separated among several different categories and these breakdowns are further delineated between quality and delivery. Although the government indicates that a new vendor with no previous history in sourcing with the government will neither benefit nor harm the supplier, a new supplier without any previous history is not able to compare under the ABVS system. The scoring system of the ABVS leads a government buyer to remain with a more established government supplier rather than a new one which reduces competitive pricing and additional vendor options.

An additional point of contention with suppliers is the contesting of the ABVS score. An established approved supplier that receives a negative penalty under the ABVS score will not be affected as much as a supplier whose first award receives a penalty. As such, a bias is formed against newer suppliers' small mistakes. A prime example to demonstrate this disparity is a late delivery by a new supplier. New suppliers are typically very confused by required packaging specifications for government sourced parts. It is possible that a product could be created on time and ready for delivery but the complex DoD packaging specifications could push a product over the delivery deadline leading to a massive penalty on a score for a product that is well made and delivered at a lower cost than the incumbent. This negative score adds an extremely subjective variable to an already confusing system bringing additional frustration to suppliers trying to establish themselves as a competent supplier with the DLA.

4. Results of the Program

4.b. Phase I

Table 3: Program by the Numbers

RFQs Placed into the Marketplace	
Total	844

Quotes Received By RFQ			
Total RFQs Quoted by MFG.com	171	Total Quotes Submitted	189
% Total RFQs Quoted	20.26%		

RFQ Status			
RFQs Completed	844	% Complete	100.00%
Total Awarded	611	% Awarded	72.39%
Total Awarded to MFG.com Suppliers	2	% to MFG.com	0.24%
Total Never Awarded	13	% Never Awarded	1.54%
Total Cancelled/Retracted	218	% Total Cancelled	25.83%

5. Key Initiatives

5.a. Phase II

Identification of Sole-Sourced Parts for Reverse Engineering

MFG.com was very encouraged upon visiting the sole-sourced room of parts available for reverse engineering. The room was full of parts that would resonate well with suppliers in the MFG.com marketplace as well as potentially bring a substantial return to the government in reduced pricing for these parts. MFG.com identified 16 parts from the sole-sourced room for the reverse engineering process.

MFG.com learned the process for new suppliers interested in participating in the reverse engineering process. The DLA has a designated area on their website under “Replenishment Parts Purchase and Borrow Program” which outlines the steps necessary for a new supplier to participate in the program. The website contains a link to all parts on the sole-sourced part list available for reverse engineering. The instructions indicate that a supplier would identify parts on the list and then visit the sole-sourced site where the parts were displayed and check them out for the process. While the online process is quite cumbersome, the supplier should be able to maneuver through the steps. The URL to the site is as follows:

<http://www.aviation.dla.mil/UserWeb/AviationEngineering/Engineering/valueengineering/RPPOB.htm>

Process for Receiving Approval for Parts is Broken

While the requisition process appears to be straightforward, the approval process to begin the reverse engineering process is inefficient and confusing. An ESA representative must approve all parts before a reverse engineering process is initiated by the supplier. Thus, although parts are included in the sole-sourced room and/or on the website listed above labeled as available for reverse engineering, an additional step must be completed with an ESA representative granting approval to begin the process.

Of the 16 parts that MFG.com requested for the process, only five parts or 30% were approved to initiate the reverse engineering process. Six of the 16 parts were rejected by the ESA and five remain open and unapproved after 45 days from the initial approval request. It seems intuitive that the ESA would grant approval of a part to be reverse engineered prior to placing the part on the online available list or in the sole-source room available for the process, but that didn't prove to be the case. If the percent approval that MFG.com encountered is representative of the whole, then only 30% of all the parts included on the list available for the reverse engineering process were valid.

This additional approval process by the ESA representatives is unnecessary and causes confusion, wasted time and resources for the supplier who believes they can be successful in providing the part at a more competitive price.

Further, MFG.com later determined that a process exists for a supplier to request an expedited process for a part to be reverse engineered without ESA approval. However, as MFG.com attempted to follow this process during the program, several parts selected to go through this process were rerouted for ESA approval and subsequently all of these parts were rejected.

Parts Without 2D Prints Should be Removed from Sole-Source Review

After MFG.com requested a part that was subsequently rejected by ESA representatives, MFG.com engaged the ESAs in a discussion of the identified rejected part. MFG.com was informed that the part in question did not include a supporting print thus the vendor would need to cover the cost for a full quality certification on the part. This process includes a full assembly test which was estimated to be greater than \$100,000. Given this fact, it appears counter-productive to have a part available for reverse engineering given the lack of technical data required to validate the part and the cost required to support the required print. MFG.com believes this issue is a direct result of the lack of communication between the DLA and ESA teams.

If a part does not have the required technical data, the teams should not include these parts in the sole-source review. Suppliers who have identified a part for the reverse engineering process and are subsequently rejected to produce the part because there is insufficient technical data became discouraged trying to understand this seemingly real opportunity that really never was a possibility. A supplier likely would not continue to invest their time and resources to compete in a process that proves so difficult to get to the starting line.

Lack of Cooperative Participation between the DLA and ESA

After receiving approval to reverse engineer five parts, MFG.com became aware of misaligned goals and accountability amongst the DLA and ESAs. The lack of cooperative participation between the DLA and ESAs as well as the lack of ultimate accountability for sole-sourced parts spend management by either party leads to an inefficient and ineffective management of sole-sourced parts. The issue is best defined as follows: the DLA is responsible for procuring parts based on projected demand; the individual ESAs are responsible for the approval of the parts from a supplier; Ultimately, neither party is accountable for spend management or cost savings.

The DLA team is unable to search for new suppliers without ESA approval. The ESA team is not motivated to assist in finding new suppliers because they do not have any accountability for part pricing. This process gives rise to continued escalated costs for the government. In conversations with the DLA, the DLA stated that reversed engineered parts and new suppliers would need approval from ESAs prior to review. After speaking with two ESA representatives, they stated that the DLA should know more about what parts are candidates for reverse engineering. Neither was motivated to assist in leading the process because neither is assigned

true ownership. It is the opinion of MFG.com that neither party feels they control the process; therefore there is no true owner to provide resolution.

Lack of a True Cost Owner

As initially highlighted in the previous section, the part sourcing process (Figure 3) is void of a true cost owner that is responsible for cost savings and selection of the best identified suppliers. The below chart illustrates the two silos and highlights the inefficiencies and ineffectiveness of the relationship:



Figure 3 Part Sourcing Process

As illustrated above, the system lacks a true cost owner. The current group responsibilities as outlined above serve to drive poor communication amongst the DLA and the ESA representatives as well as neglects supplier cost accountability. As the system is today, the two groups conflict with each other because they have opposing motivations and goals. Without more unified cohesive goals the system will continue to have major failure points. In the commercial world the procurement group is ultimately responsible for part purchasing and supplier selection. Procurement is responsible for identifying and shopping the parts to qualified suppliers. With that, procurement is also responsible for selecting suppliers that are able to meet the manufacturing and quality requirements of the specified parts. Engineering is not involved in sourcing after the part design is complete and in production.

Lack of Desire to Find More Cost Effective Alternatives

Given the lack of accountability across the groups for spend management, MFG.com determined the ESA representatives engaged were not motivated to ensure success of the program. MFG.com believes the ESAs view the program as increased responsibilities without direct benefits. This was further demonstrated when MFG.com inquired about other parts the ESAs may be struggling to source or considering price reductions. The response received from the ESA representative was that there were not any parts in which he was struggling to find additional sources or looking for price reductions. MFG.com believes that given the volume of parts being sourced, there should be multiple parts that would present cost efficiency challenges for the ESAs.

Suppliers are not Guaranteed Success with Reverse Engineering

MFG.com discovered if a supplier was successful in reverse engineering the part as well as becoming an approved supplier of the part, they would not be guaranteed future business from their efforts. As explained by the DLA, after a part is reverse engineered and the supplier performing the work is approved, the part is released for an open bidding process. The incumbent supplier could ultimately reduce their price to continue winning the contract. Essentially, the incumbent supplier had historically taken advantage of the government purchasing process providing the part at a large margin. When pressed, the incumbent supplier may reduce their price and continue to obtain the business. This scenario results in excess spend by the DLA as well as a disgruntled and disillusioned new supplier who invested valuable time and resourced in an effort to better serve the DLA.

Opportunity for Additional Suppliers and Reduction in Cost is High

Through the reverse engineering study, MFG.com found large potential cost savings do exist upon utilizing the open market for sourcing manufactured parts. Although the results are preliminary based on the knowledge of the part requirements by each supplier, the initial estimates demonstrate significant part cost savings. By creating a cost reduction program and providing data to suppliers for quoting and reverse engineering, it is believed that at least a 25% cost savings could be achieved on sole-sourced parts. Some parts as shown in Table 2 could realize in excess of an 80% reduction in cost.

5. Results of the Program

5.b. Phase II

Table 4: Program by the Numbers

Parts Reverse Engineered					
NSN Part	Description	Current DLA Price	Preliminary Open Market Price Estimate	Reduction in Current Price	
5935-01-1859180	Adapter Connector	\$1,984.12	\$132.50	\$1,851.62	93%
5310-01-4551469	Nut, Plain, Barrel	\$18.14	\$13.95	\$4.19	23%
4320-00-2490150	Cylinder Block Unit, Hydraulic Motor Pump	\$1,584.80	\$218.50	\$1,366.30	86%
2835-01-2052606	Housing, Carrier, Bearing, Front	\$1,877.99	\$225.00	\$1,652.99	88%

6. Recommendations

6.a. Phase I

Simplify the Sourcing Process

Implementation of a program to simplify the DIBBS sourcing process similar to the solution MFG.com provided would greatly enhance participation and adoption. Suppliers want to feel comfortable and assured they are taking the proper steps to source successfully with the government. The current process is very cumbersome and frustrating due to inconsistency of the data, inclusion of irrelevant data and language not intuitive to the reader.

Standardize Part Design Data and Technical Packages

Standardization of Technical Data Packages would help to provide a consistent supplier experience and quoting results from the supply base. The team understands that 3D CAD is not available for most parts due to the age of the products. All solicitation information was provided in C4 format which can then be converted into a 2D PDF; however, machined, casted and molded parts all use 3D CAD files to capture the raw data, dimensions and tolerances of the parts. Having 3D CAD files to run through the suppliers CAD CAM software would speed up the quoting process. Some suppliers refuse to quote on RFQs without 3D CAD files because of the time and man power it takes to estimate the quote in 2D.

Therefore, including 3D CAD in all new parts will assist in increasing competition and the number of quote responses received. With the latest manufacturing equipment operating from 3D CAD, the supply chain is evolving at a faster pace than the sourcing data supplied for government products. The result of this evolution is the available supplier pool to provide manufacturing services for the government will continue to decrease.

Implement Improved Communication Tools and Methodologies to the Supply Chain

Identify and implement a more robust communication channel using both industry standard technology as well as requirements to respond in a more timely matter to supplier inquiries. No commercial business would survive if they did not respond to customer requests in a timely and effective manner. MFG.com requires customer service representatives to respond within the same business day for all customer emails or phone calls received. Additionally, MFG.com utilizes Live Chat with customers that can be initiated and responded to in real-time. Prompt communication to customers will only serve to improve and expand supplier relationships and trust.

Further, utilizing mass communication tools built directly into the quoting platform would enhance the supplier experience as well as potentially lesson the burden on purchasing representatives. Mass communication tools are frequently used in the commercial space to improve efficiency and effectiveness. For instance, most sourcing platforms allow the buyer to easily post a response to a supplier question to all interested suppliers where relevant. Another suggestion could be as simple as a posting board for each solicitation created through the DIBBS platform.

6. Recommendations

6.b. Phase II

Designate a Spend Owner with Savings Goals

Without a true part cost owner accountable for improved efficiencies, cost savings will not be achieved. In the current dual responsibility structure, the cost owner does not control the source and is not held accountable for price reduction metrics. Thus there is currently no motivation to leverage the supply chain for identifying and sourcing to alternate suppliers.

In commercial organizations, the engineering department is responsible for product design and development. Once designs are complete, the sourcing process is managed by the purchasing department. Typically, supplier selection and quotes for custom designs are managed by the engineering or product design teams. It is done this way because material selection, prototyping, fit, form and function testing are required. Once the transition from engineering to purchasing transpires, engineering is not involved in supply chain decisions. The current government structure for sourcing does not have the transition from engineering to purchasing as the ESA engineers and representatives have control of the supplier selection process.

Streamline the Process for Identification and Acquisition of Sole-Sourced Parts

The current process for identifying and acquiring a sole-sourced part from the DLA is exceptionally time consuming, manual in nature and overall ineffective. While the DLA has what appears to be a well-defined list of parts available to reverse engineer, the reality is that only a small portion (30%) of these parts are truly available for the reverse engineering process. Currently after a vendor such as MFG.com identifies a part they would like to reverse engineer, an ESA representative must approve the part prior to the vendor starting the process. Logically, a pre-approval process by the ESA should be implemented prior to providing the part as available for the reverse engineering process.

Once an approved parts list is determined, the ability to order and return the parts should be fully automated. The process should be as simple as ordering an item from any online retailer with the acceptance of credit payment and automated shipping notifications.

7. Conclusion

In conclusion, MFG.com invested significant time and resources to ensure the success of the program including:

- Simplifying the new government supplier approval process
- Simplifying the DIBBS sourcing process
- Hiring experienced consultants
- Dedicating internal resources
- Coordinating and attending numerous DLA and other government related meetings
- Organizing and executing numerous marketing events

Given these efforts, MFG.com generated significant interest in the supplier base, bringing the number of approved suppliers to 145 during the course of the program. However, both MFG.com and the suppliers were very disappointed to uncover extreme inefficiencies in the DIBBS system and the DLA. The suppliers were unable to reap the rewards promised during the program and became discouraged after many unsuccessful attempts to yield success. Ultimately, these inefficiencies led the majority of the active suppliers to abandon the program and include the following:

- Immaterial dollar amount of RFQs
- Lack of sufficient RFQs due to DIBBS system outages
- Lack of sufficient RFQs due to the threat of sequestration
- Retracted RFQs
- Lack of DLA and buyer feedback
- Duplicated parts posted
- Lack of award feedback
- Insufficient and inconsistent TDPs
- Biased awarding system to supplier incumbent

Suppliers need to produce a margin to remain a viable business. When effort is expended by suppliers as they did during this program and then yield no positive margin impact to their business, they will move to other commercial opportunities which they know will provide a positive margin. MFG.com believes the inefficiencies of the DLA as presented in this report, result from a lack of overall accountability and clear expectations. A for-profit business must ensure accountability at each level of the organization to ensure success. Implementation of clear responsibility and accountability to staff members is a must in the commercial world. All team members need to feel they are contributing to a unified mission as well as making progress toward that goal each day. The government should follow a similar process.

8. Appendices

Appendix A

A1

Interview on WTOP Radio, Washington DC

Title: Digital Network Hopes to Connect Small Businesses with DoD

Date: 9/30/12

Source: <http://www.wtop.com/41/3060068/Digital-network-hopes-to-connect-small-businesses-with-DOD>

A2

Interview on Federal News Radio, Washington DC

Title: DoD Carries Weight of Government Wide Small Business Goal

Date: 10/9/12

Source: <http://www.federalnewsradio.com/1040/3058191/DoD-carries-weight-of-governmentwide-small-business-goal>

A3

Bi-Line Article, Manufacturing.net

Title: Transforming the Relationship between Suppliers and the DoD

Date: 11/14/12

Author: Mitch Free, MFG.com Founder & CEO

Source: <http://www.manufacturing.net/articles/2012/11/transforming-the-relationship-between-suppliers-and-the-dod>

The challenges of sourcing complex manufactured goods to support the Department of Defense (DoD) create significant obstacles for the U.S. manufacturing industry. These obstacles increase defense costs, hinder the Department's ability to keep equipment operational and impede military readiness. While today's manufacturing environment is notably global, opportunities exist to help strengthen the U.S. defense industrial base while improving supply chain security. Leveraging digital innovations, like online manufacturing marketplaces, fosters a collaboration between suppliers and the DoD which benefits American industry and helps get needed parts to our soldiers, sailors and airmen faster. Let's look at how:

The percentage of goods manufactured for the DoD by foreign suppliers is relatively small, only ranging from 3.6 to 8 percent annually over the past five years. However the total dollar value is large – especially when viewed from the perspective of U.S. small- and medium-sized suppliers.[1] Since 2007, the DoD has spent from \$5.08 to \$10.3 billion dollars annually with foreign suppliers on items needed to support the American military.[2] One of the reasons for this is our agreements with allies that help improve interoperability and our foreign military sales. However, another reason is that there are often no U.S. companies that bid on DoD requests for quotes (RFQs). An average of \$55 billion in defense contracts each year has only

one bidder. This is often due the excessive time it takes to find opportunities, challenges in understanding government regulations and confusion from a lack of standardized information.

The DoD is keenly aware that it needs to achieve two strategic goals in its relationship with the manufacturing sector of U.S. economy. First, it needs to reduce the effort and time required for U.S. suppliers to match their capabilities to DoD needs for complex manufactured goods. Second, it needs to expand its reach to American suppliers that aren't already doing business with the DoD — and leverage innovative platforms to do so.

DoD has launched the Connecting American Manufacturing (CAM) program to streamline the solicitation and bidding processes for suppliers and enhance RFQ matching and quoting.

Sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy, and addressing the direct interests of the White House Office of Science and Technology, the CAM program highlights digital innovations — such as those provided by MFG.com — to automate many of the labor-intensive processes that previously functioned as complex barriers between manufacturing firms and the DoD. Using the MFG.com platform, suppliers no longer have to sift through mountains of DoD solicitations to find opportunities that best align with their capabilities. Many previously difficult bidding processes have been reduced to a few clicks of the mouse.

The program is generating a wide array of ancillary benefits too, such as supporting job creation at U.S. manufacturing firms and reducing environmental impact by enabling the purchase of goods domestically.

Brench Boden, Senior Industrial Engineer at the Air Force Research Lab who manages the program, sums it up: "The CAM program is an example of how we are supporting the Warfighter by leveraging commercial best practices. Online manufacturing marketplaces, like MFG.com and others selected to advance the goals of CAM, help position the U.S. industrial base to be competitive in a global and digitally connected world. [This effort] will help provide a bridge between the DoD and American suppliers, and help the DoD create a seamless and robust infrastructure to quickly find U.S. suppliers with the right capabilities."

Reducing the Effort and Time Required to Find Relevant Opportunities

Companies that are new to the process of working with the federal government often find the initial registration process daunting and time-consuming. But assistance from MFG.com helps takes the pain out of this discovery and registration process. Additionally, MFG.com provides guidance about whether suppliers may be eligible to become certified in one of the federal government's small business programs. Certification enables businesses to qualify for significant small business "set asides" and other incentives that the DoD applies when evaluating bids.

For example, if a manufacturer is located in a historically underutilized business zone (HUBZone), the company will receive a 10 percent price evaluation preference in its bid. If the bidding firm can meet the requirements of the RFP, government contracting officers are required to add 10 percent to the price of all other non-HUBZone bids when awarding contracts.

The bottom-line benefits of the CAM program are straightforward: it gets parts to the Warfighter faster, reduces costs for the U.S. taxpayer and helps U.S. industry. As more suppliers sign up to participate, the defense industrial base is strengthened, soldiers get needed equipment faster and U.S. taxpayers benefit from reduced costs in the acquisition process. It's a formula for success that delivers big benefits for everyone involved.

For more information about how to participate, suppliers can visit the MFG.com website at <http://www.mfg.com/dod/registration>.

[1] Department of Defense, Report to Congress on Purchases of Supplies Manufactured Outside the United States in FY 2011 —

http://www.acq.osd.mil/dpap/cpic/cp/docs/DoD_FY_2011_Purchases_of_Supplies_Manufactured_Outside_the_United_States_percent20.pdf

[2] Department of Defense, Report to Congress on Purchases of Supplies Manufactured Outside the United States in FY 2011 —

http://www.acq.osd.mil/dpap/cpic/cp/docs/DoD_FY_2011_Purchases_of_Supplies_Manufactured_Outside_the_United_States_percent20.pdf

A4

Interview on WDTW Radio, Detroit

Title: First Shift with Tony Trupiano, Tony Talks with Mitch Free, CEO of MFG.com

Date: 12/2/12

Source:

http://www.iheart.com/?podcast=FirstShift&selected_podcast=9AM2_1353337666_26871.mp3

A5

Interview on WJLA TV, Washington Business Report, Washington, DC

Title: Washington Business Report, Interview with Mitch Free

Date: 9/30/12

Source:

<http://link.brightcove.com/services/player/bcpid932647471001?bckey=AQ~~,AAAAGuN0bcE~,rS1wzGXkRNkBi1RYglqd0AllsZiMZogu&bctid=2000781276001>

A6

Interview on WOWO Radio, Indianapolis

Title: WOWO 92.3 FM Interview with Mitch Free

Date: 12/20/12

Source: <http://www.connectingmfg.com/twiki/pub/CAM/MFGDotCom/20dec12-wowo-prerecorded.mp3>

Appendix B

B1.0

CAM Email Campaigns – Paid Supplier DoD Contract Announcement

Date: 8/2/12



CONNECTING AMERICAN MANUFACTURING

MFG.com was recently selected as a key provider to help the Department of Defense (DoD), through the Connecting American Manufacturing (CAM) initiative, improve sourcing of manufactured goods. The first solicitations have now been posted. What does this mean for you, as a premier supplier member of MFG.com? It means you will get more information, more assistance and more opportunities to provide equipment to the DoD than ever before!

Top three reasons YOU need to be a DoD supplier:

1. **Gain access to new customers.** MFG.com can help you find new business opportunities.
2. **Generate revenue.** MFG.com can match DoD requirements to your capabilities and help you respond to complicated government requests for proposal (RFPs).
3. **Expand and diversify your customer base.** MFG.com and CAM enable you to access a network of customers to more easily and quickly fill DoD orders.

Here's how MFG.com can help small businesses:

The federal government's small business programs are designed to strengthen the U.S. industrial base, open up avenues for small businesses to more effectively compete in the marketplace and enable the DoD to gain greater access to innovative products and services. Check out the attached Supplier Registration Guidelines (or visit <http://www.mfg.com/dod/registration>) to help you get started.

Opportunities for MFG.com suppliers:

- Are you a veteran? You may qualify as a Veteran and Service Disabled Veteran-Owned Small Business.
- Does your company create jobs in economically needy areas? Apply for a Historically Underutilized Business Zone Small Business designation.
- Is your business owned and managed by a woman? Try the Women-Owned Small Business classification.
- Is your business controlled by an individual with social and/or economic challenges? The Small Disadvantaged Business certification may be for you.

For more information on these valuable programs that are set-aside for small businesses, visit our small business page at: <http://www.mfg.com/dod/programs>.

B1.1

CAM Email Campaigns – Buyers Logged in Last 48 Months DoD Contract Announcement Email
Date: 8/15/12

MFG.com has been selected to help DoD buyers and engineers more easily find and connect with U.S. suppliers. This project, which is sponsored by the Office of the Secretary of Defense and the White House Office of Science and Technology Policy, is projected to achieve significant results. The key metrics for success are:

- an increase in the available DoD supplier base
- an increase in the number of responses per RFQ; and
- a decrease in price and delivery time with no loss of quality.

We are proud to be a part of this project that will benefit our Warfighters, taxpayers and U.S. industry. Read our [press release](#) to learn more.

If you would like to learn more about how we can help you with your sourcing challenges, call your account representative [EMV FIELD]REPFULLNAME[EMV /FIELD] today at [EMV FIELD]REPPHONE[EMV /FIELD].

Best regards,

Mitch Free
CEO

B1.2

CAM Email Campaigns – Prospect Supplier DoD Contract Announcement

Date: 9/6/12



CONNECTING AMERICAN MANUFACTURING

MFG.com was recently selected as a key provider to help the Department of Defense (DoD), through the Connecting American Manufacturing (CAM) initiative, improve sourcing of manufactured goods. The first solicitations have now been posted. What does this mean for you? It means that if you become a supplier member of MFG.com, you will get the assistance you need to become certified and gain access to more opportunities with the DoD!

Top three reasons YOU need to be a DoD supplier:

1. **Gain access to new customers.** MFG.com can help you find new business opportunities and help buyers find YOUR business.
2. **Generate revenue.** MFG.com can match DoD requirements to your capabilities and help you respond to complicated government requests for proposal (RFPs).
3. **Expand and diversify your customer base.** MFG.com and CAM enable you to more easily and quickly fill DoD orders through access to a network of customers.

Here's how MFG.com can help small businesses:

The federal government's small business programs are designed to strengthen the U.S. industrial base, open up avenues for small businesses to more effectively compete in the marketplace and enable the DoD to gain greater access to innovative products and services.

MFG.com has developed comprehensive **Supplier Registration Guidelines** to help businesses better understand the process of registering for these programs. MFG.com suppliers can visit <http://www.mfg.com/dod/registration> to get started.

Contact us: 866.667.1212 or sales@mfg.com

MFG.com can help find opportunities for our suppliers:

- Are you a veteran? You may qualify as a Veteran-Owned or Service-Disabled Veteran-Owned Small Business.
- Does your company create jobs in economically needy areas? Apply for a Historically Underutilized Business Zone Small Business designation.
- Is your business owned and managed by a woman? Try the Women-Owned Small Business classification.
- Is your business controlled by an individual with social and/or economic challenges? The Small Disadvantaged Business certification may be for you.

For more information on these valuable programs that are set aside for small businesses, join MFG.com and visit our small business page at: <http://www.mfg.com/dod/programs>.



MFG.com is the largest online marketplace for the manufacturing industry. Contact us today at 866-667-1212 or sales@mfg.com to learn how we can help you increase sales and profits. Watch for future e-mails to learn more about gaining an advantage for government programs.

B1.3

CAM Email Campaigns – Govt Buyers DoD Contract Announcement Email

Date: 9/6/12



MFG.com was recently selected as a key provider to help the Department of Defense (DoD) improve the sourcing of manufactured goods. The program, Connecting American Manufacturing (CAM), is sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy and has several key objectives.

- Get parts to the Warfighter faster
- Increase the number of responses per RFQ
- Decrease item costs with no loss of quality
- Help the U.S. manufacturing industry

While much of the effort has been focused on working with the Defense Logistics Agency, the program also is able to help others in the DoD as well as other government agencies. In addition to traditional sourcing needs, MFG.com can be particularly useful in helping you connect to qualified small- and disadvantaged-businesses to better meet your set-aside requirements.

Contact me today to learn more about how the CAM project and MFG.com can simplify your sourcing of manufactured goods.

Best regards,

Eva Huang
Account Representative, MFG.com
6140
EvaHuang@mfg.com

B2.0

HUBZone Email Campaigns – Prospect & Paid Suppliers

Date: 9/18/12



CONNECTING AMERICAN MANUFACTURING

The Historically Underutilized Business Zones (HUBZone) program helps small businesses in urban and rural communities gain preferential access to federal procurement opportunities.

Did you know that HUBZone-certified small businesses get a 10% price evaluation preference when bidding on government contracts? It's true! If your small business qualifies, then government contracting officers are required to add 10% to the price of all other non-HUBZone bids when awarding contracts.

MFG.com was recently selected as a key provider to help the Department of Defense (DoD) improve the sourcing of manufactured goods through the Connecting American Manufacturing (CAM) initiative. If you become a supplier member of MFG.com, we will help you get the assistance you need to become HUBZone-certified and enjoy big competitive advantages over other businesses, including qualifying for contract set-asides.

Is YOUR business eligible for the HUBZone Program?

1. **Small business** - Does your company qualify as a small business according to [SBA standards](#)?
2. **Principal office in a HUBZone** - Is your main office in a HUBZone? ([see map](#))
3. **Employees reside in HUBZone** - Do at least 35% of your company's employees reside in the HUBZone?

Here's how MFG.com can help your business:

- A steady stream of DoD business leads that are better aligned with your company's strengths.
- Quick access to a list of relevant DoD opportunities instead of having to sift through mountains of government solicitations.
- Automatic alerts whenever new DoD opportunities arise that match your company's capabilities.
- An easy-to-use web-based platform that helps save thousands of dollars in marketing expenses such as lead generation, search engine optimization, advertising, trade shows and directory listings.

For more information about the HUBZone program and other small business certifications, visit our site: <http://www.mfg.com/dod/programs>.

Once you have secured a HUBZone certification, please update your status within MFG.com by editing your certificates at the bottom of your profile page. Please make sure you upload the actual certificate as the DoD and defense contractors will require proof of your certification.



MFG.com is the largest online marketplace for the manufacturing industry. Contact us today at 866-667-1212 or sales@mfg.com to learn how we can help you increase sales and profits. Watch for future e-mails to learn more about gaining an advantage for government programs.

B2.1

Small Business Email Campaigns –Paid & Prospect Suppliers

Date: 10/3/12



**CONNECTING
AMERICAN MANUFACTURING**

Small Businesses Get BIG Preferences in Gov't Bids

There are BIG benefits to having your company classified as a "small business" by the U.S. Small Business Administration (SBA). The Department of Defense (DoD) not only buys billions of dollars' worth of products and services every year, but it also is required to set aside many opportunities just for small businesses. To qualify for these opportunities, your company must be registered in federal databases as a small business.

Success Story

Small Manufacturer Becomes First to Break into DoD New Program Under MFG.com

MFG.com was recently selected as a key provider to help the DoD improve the sourcing of manufactured goods through the Connecting American Manufacturing (CAM) Initiative. A long-time small business member of MFG.com recently bid on two projects through the CAM program and won them both.

Ottinger Machine Company, of Indianapolis, IN, used to employ 30 people. But with the downturn in the economy they're running the business now with just three employees. Although the tough economy prompted Ottinger to start exploring new avenues for business opportunities, they didn't consider pursuing government work again until MFG.com began the CAM program. Ottinger quickly won two contracts with the DoD—their first government contracts in almost 30 years.

Jeffrey Ottinger, the company's owner, said, "Once you understand the process, bidding on DoD opportunities is easy. DoD solicitations often close quickly, so you have to move quickly, but MFG.com makes it seamless. The training offered by MFG.com is excellent, and it guided us through a process that would have been difficult without their help. Previously, there was a six-month learning curve involved with getting up to speed on government contracts. All of that is greatly simplified thanks to MFG.com and the CAM program."

Sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy and addressing the direct interests of the White House Office of Science and Technology, the CAM program's goal is to help better connect DoD manufacturing needs with U.S. manufacturer capabilities.

"The CAM program is an example of how we are supporting the Warfighter by leveraging commercial best practices," said Branch Boden, Senior Industrial Engineer at the Air Force Research Lab. "Online manufacturing marketplaces, like MFG.com and others selected to advance the goals of CAM, help position the U.S. industrial base to be competitive in a global and digitally connected world. These organizations will help provide a bridge between the DoD and American manufacturers, and help the DoD create a seamless and robust infrastructure to quickly find U.S. manufacturers with the right capabilities. We look forward to continuing to forge these alliances as we work to strengthen government buying approaches."

Is YOUR business eligible for the Small Business Program?

Does your business qualify? The SBA defines a "small business" in terms of the number of employees over the past year, or average annual receipts over the past three years. Size standards vary by industry and are matched to the North American Industry Classification System (NAICS). The SBA outlines the largest size that a business can be for it to remain a classified "small business." Please visit SBA's guide to [Classifying Your Business](#) to find out if your company can be classified as a small business.

B3

Direct Mail Campaign

Date: 11/13/12

Grow Your Business—Connect with the Department of Defense

In the fight to win new business, your strategic allies are MFG.com, the world's largest online manufacturing marketplace, and Connecting American Manufacturing (CAM), DoD's new program to reach out to the manufacturing industry. In the past, small businesses like yours had to sort through mountains of paperwork and solicitations to find relevant government opportunities. By removing these barriers, we make the process easier to understand and match the right suppliers with the right parts at the right time. MFG.com and CAM provide big benefits for small manufacturers!

More Opportunities, More Customers, More Sales...

MFG.com can help you find new business with the DoD by reviewing thousands of complicated government requests for quotation (RFQs) and delivering opportunities directly to you that fit your specific capabilities. Our streamlined and automated processes help you easily respond to the RFQs and provide access to a network of DoD customers so you can more easily and quickly fill orders.

Get the BIG BENEFITS that give you a leg up on the competition:

- Expand into a new market with access to a network of DoD customers
- Increase sales and profits with targeted, relevant DoD opportunities
- Decrease time and effort with seamless online capabilities to simplify RFQs

Get more information. Visit www.mfg.com/cam/parts or call 888.667.1212 today!



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YOUR NEW STRATEGIC ALLIES IN THE FIGHT TO GET DoD BUSINESS:

MFG.com and CAM have Joined Forces to...

- Help veteran-owned and all U.S. small- and mid-size manufacturers do business with the DoD by delivering to you the right opportunities that match your capabilities
- Get needed equipment to our soldiers, sailors and airmen faster
- Expand the U.S. defense industrial base

We're on Your Side in the Battle to...

- Gain access to DoD customers who need your products and services
- Generate more revenue for your company
- Streamline the process of working with the DoD

Which Part Could Your Business Play?

Appendix C

CAM Press Release

Title: MFG.com Awarded Contract to Connect American Manufacturing

Date: 8/2/12

Source: <http://www.mfg.com/media/press-release/mfgcom-awarded-contract-connect-american-manufacturing>

Effort Will Increase Access to Defense Opportunities for U.S. Suppliers

Atlanta—MFG.com, the world's leading online manufacturing marketplace, was recently selected as a key provider to help the Department of Defense (DoD) improve their sourcing of manufactured goods necessary for military readiness. The first solicitations have now been posted and MFG.com suppliers have already begun responding.

MFG.com was awarded this contract by the Office of the Secretary of Defense, Manufacturing Technology Program to apply a marketplace-based sourcing approach for manufactured items. The program, "Connecting American Manufacturing (CAM)," has two primary objectives. The first is to make it easier for the DoD to find U.S. suppliers with the right capability and capacity at the right time. The program also will make it easier for U.S. suppliers to find and secure DoD opportunities that match their capabilities.

More than \$115 billion in commercial manufactured goods have already been sourced through the MFG.com marketplace, making it uniquely suited to help the DoD connect with U.S. suppliers. Now, by providing one source for both commercial and government opportunities, suppliers using MFG.com can more easily find and quote on relevant opportunities with less effort.

The benefits of the DoD and MFG.com partnership include the following.

- *Getting parts to the Warfighter faster*
- *Reducing costs for U.S. taxpayers with no loss of quality*
- *Improving access to DoD opportunities for U.S. suppliers*

"It's exciting to see our government leaders acknowledge the importance of investing in the future of the American manufacturing industry. The CAM project is an example of how public-private partnerships can leverage commercial best practices to help the government while positioning the U.S. industrial base to be more globally competitive. MFG.com is honored to be at the center of making this a reality," said [Mitch Free](#), founder and Chief Executive Officer of MFG.com. "For 12 years, MFG.com has relentlessly built the environment, best practices and technology backbone critical to the success of this government initiative. We are proud to do our part to help the Warfighters, taxpayers and U.S. industry."

About “Connecting American Manufacturing”

The objective of the “Connecting American Manufacturing” (CAM) program is to help better connect DoD manufacturing needs with U.S. manufacturer capabilities. CAM will make it much easier for the DoD to find U.S. suppliers with the right capability and capacity at the right time. The program also will make it easier for U.S. suppliers to find and secure DoD opportunities that match their capabilities. This program is sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy, addressing the direct interests of the White House Office of Science and Technology Policy.

About MFG.com

MFG.com is the largest online marketplace for the manufacturing industry, facilitating interaction between buyers and suppliers. With more than \$115 billion in RFQs passing through the marketplace, MFG.com has helped thousands of suppliers—ranging from small single-person machine shops to large conglomerates—increase sales and grow profits. Investors in MFG.com include Bezos Expeditions, the personal investment company of Jeff Bezos and Volition Capital.

Media Contact:

For interview and speaking requests please contact Lisa Harrison at 703-283-6572 or lharrison@hillmerinc.com.

Appendix D

D1

Content Marketing — CAM Fact Sheet (pg. 1)

**CONNECTING****AMERICAN MANUFACTURING**

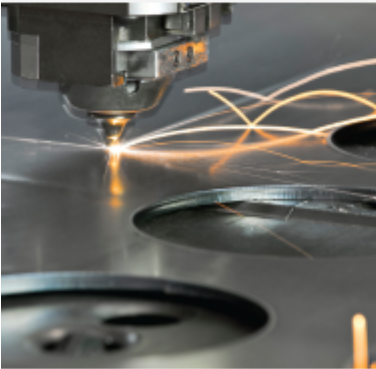
Gain Access to Department of Defense (DoD) Opportunities!

MFG.com is Helping DoD Connect with U.S. Manufacturers



MFG.com has worked with the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy, to launch the Connecting American Manufacturing (CAM) program. The objective of the CAM program is to help better connect DoD manufacturing needs with U.S. manufacturer capabilities. The program will also make it easier for U.S. manufacturers to find and secure DoD opportunities that match their capabilities. This new program will:

- Provide U.S. manufacturers with access to new opportunities
- Improve the match between DoD needs and U.S. manufacturer capabilities
- Reduce the effort required to respond to DoD requests for quotes
- Improve U.S. manufacturers' ability to capture DoD opportunities



Manufacturers currently face many challenges in doing work with the DoD, ranging from excessive time and cost in finding opportunities to the increased risk and confusion from a lack of standardized information.

MFG.com is working to remove these barriers to help U.S. manufacturers reduce costs and effort while increasing business. While CAM may open up some competition between U.S. manufacturers, one of the key

goals is to help all U.S. manufacturers better compete for DoD business that often goes overseas. In fact, the primary objectives of the CAM project are to:

- Get equipment to the Warfighter faster
- Reduce costs for U.S. taxpayers
- Help the U.S. manufacturing industry

Transforming the Relationship Between Manufacturers and the DoD

The DoD lists thousands of items daily that are required to meet defense needs; however, finding the right opportunity is a complex and time-consuming effort. This is made particularly difficult if a manufacturer is unfamiliar with the acronyms, specifications and requirements that are particular to DoD.

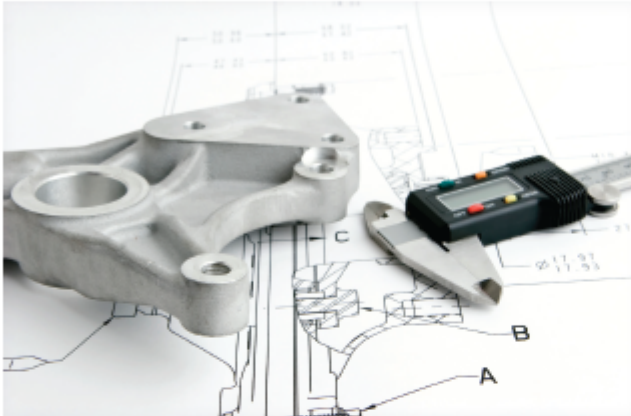
MFG.com is working to simplify much of the work by providing new tools and better interfaces between DoD and U.S. manufacturers. As the largest online marketplace for the manufacturing community, MFG.com is supporting the CAM project by helping U.S. manufacturers more easily find and secure new DoD business opportunities.

**MFG.COM** CAM | Connecting American Manufacturing

888.404.9686 | www.mfg.com

Gain Access to Department of Defense (DoD) Opportunities!

MFG.com is Helping DoD Connect with U.S. Manufacturers



Benefiting the Nation's Economy, the U.S. Industrial Base and the Warfighter

The CAM program actively supports job creation in the U.S. by establishing a network of suppliers that can more easily and quickly fill orders for manufactured goods. Warfighters benefit because they get the products they need faster and more efficiently, and the U.S. industrial base benefits via expanded business opportunities.

The CAM program will help ensure industrial production capabilities are reliable, commercially competitive and responsive to DoD requirements. MFG.com provides the valuable bridge between U.S. manufacturers and the federal government. With MFG.com, manufacturers benefit from having an expert partner that has been fulfilling government missions and objectives for 12 years.

"The CAM project is an example of how we are fostering job creation through public-private partnerships, leveraging commercial best practices and positioning the U.S. industrial base to be competitive in a global and digitally connected world."

Mitch Free
CEO, MFG.com

About Connecting American Manufacturing:

The objective of the Connecting American Manufacturing (CAM) program is to help better connect DoD manufacturing needs with U.S. manufacturer capabilities. CAM will make it much easier for the DoD to find U.S. manufacturers with the right capability and capacity at the right time. The program will also make it easier for U.S. manufacturers to find and secure DoD opportunities that match their capabilities. This program is sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy, addressing the direct interests of the White House Office of Science and Technology.

About MFG.com:

MFG.com is the largest and most trusted online marketplace for the manufacturing industry. With more than \$100 billion in requests for quotes passing through the marketplace, MFG.com has helped thousands of manufacturers—ranging from small, single-person machine shops to large conglomerates—increase sales and grow profits.

D2

Content Marketing — Supplier Resource Guide (pg. 1)

Source: <http://www.mfg.com/dod/registration>

    DoD Supplier Registration Guidelines http://www.mfg.com/dod/registration		
TASK	DESCRIPTION	ACCEPTANCE FOLLOW-UP
Obtain DUNS Number PROCESS TIME: 1-2 DAYS	The Data Universal Number System (DUNS) number is a unique nine character identification. Before you can bid on government proposals, you need to obtain a DUNS number.	Once you have secured your DUNS number please edit your demographics on your MFG.com profile page to include this information.
Confirm Tax ID Number	The Taxpayer Identification Number (TIN) is an identification number used by the IRS in the administration of tax laws. It is issued by the Social Security Administration or by the IRS.	
Register with SAM	The System for Award Management (SAM) has combined eight Federal procurement systems and the Catalog of Federal Domestic Assistance into one new system. SAM provides allows you to register to do business with the government, represent/self-certify as a Small Business, and view business opportunities. Effective August 2012, SAM replaced CCR, ORCA and EPLS.	
Obtain CAGE Code	The Commercial and Government Entity (CAGE) code is a five position code that identifies contractors doing business with the Federal Government. You will be able to view your CAGE code once you have registered with SAM.	Once you have secured your CAGE code, please edit your demographics on your MFG.com profile page with this information. You must have a CAGE code in your MFG.com profile to quote on a DoD RFQ.
Submit Authorization to Quote on Behalf Of	Prior to quoting DoD projects through MFG.com, you need to create a document on your company letterhead, signed and dated, with the sentence below. Submit signed and dated copy of the document to CAM@mfg.com or fax to 678.868.2190. <i>I hereby authorize MFG.com (CAGE code 4TUK1) to place bids on behalf of [insert your company name], CAGE code [insert your company CAGE code]. [insert your name and title]</i>	
Submit Supplier Capability Form	The DoD uses the Supplier Capability Form to evaluate and rank vendors. Please submit a completed form to MfgCapabilitySurvey@dia.mil and ahightower@mfg.com.	
Secure DD 2345 Form COMPLETION TIME: 20 MIN PROCESS TIME: UP TO 5 DAYS	A DD 2345 is required by U.S. contractors that want to obtain access to unclassified technical data disclosing military critical technology with the military. Suppliers must submit a DD 2345 form to the U.S. Joint Certification Office to verify the legitimacy of the company.	
Determine Ability to Qualify for Various Small Business Programs	The DoD has programs in place to make sure that qualified small and disadvantaged suppliers have ample opportunities to win their business. In order to qualify for a RFQ that is a set-aside for Small Business, you will need to either self-certify or register your business, depending on the type of certification you seek. *See reverse for specific Small Business Program details.	Once you have determined and secured the certifications you qualify for, please update your status within MFG.com by editing your certificates (scroll to the bottom of the page to view these new certificates). For those certifications that come with a document, be sure to upload your certificate.

D2

Content Marketing — Supplier Resource Guide (pg. 2)

 DoD Small Business & Diversity Programs http://www.mfg.com/dod/programs	
PROGRAM	DESCRIPTION
Small Business PROCESS TIME: 1-2 DAYS	Small Business (SB) - Located in U.S., organized for profit, meets Small Business administration size standards included in solicitation. The Small Business size standards are determined by the North American Industry Classification System (NAICS). The typical rule is that manufacturing and mining industries qualify if they have less than 500 employees. This is a self-certify classification. No form to complete.
Women-Owned Small Business	Women-Owned Small Business (WOSB) - Small Business and at least 51% owned by at least one woman and management and daily business operations are handled by one or more women. This is a self-certify classification. No form to complete.
Small Disadvantaged Business COMPLETION TIME: 2-4 HOURS PROCESS TIME: 90 DAYS	Small Disadvantaged Business (SDB) Includes 8(a) - Small Business, unconditionally owned & controlled by a socially and economically disadvantaged Individual(s) who are of good character and citizens of the U.S. and SBA certified. This 8(a) status does require a certification.
Historically Underutilized Business Zone COMPLETION TIME: 3 HOURS PROCESS TIME: 90 DAYS	Historically Underutilized Business Zone (HUBZone) - Small Business, owned and controlled by U.S. citizens, SBA-certified as a HUBZone concern (principal office located in a designated HUBZone & 35% of the employees live in a HUBZone). The HUBZone status does require a certification. The primary goal of the HUBZone program is to create incentives for the U.S. Government to contract with businesses that operate and create jobs in communities with statically proven economic needs.
Veteran and Service Disabled Veteran-Owned Small Business	Veteran and Service Disabled Veteran-Owned Small Business (VOSB & SDVOSB) - A Small Business that is veteran owned with 51% of the ownership being with the veteran or service disabled veteran as well as the management/daily operations controlled by 1 or more veterans. In the case in which the veteran is with a permanent or severe disability, the spouse or permanent caregiver may act as the management of daily operations. This is a self-certify classification. No form to complete.
Economically Disadvantaged Women-Owned Small Business COMPLETION TIME: 2 HOURS	Economically Disadvantaged Women-Owned Small Business (EDWOSB) - Small Business and is at least 51% directly and unconditionally owned and controlled by one or more women who are U.S. citizens and who are economically disadvantaged. A woman is presumed economically disadvantaged if she has a personal net worth less than \$750,000, her adjusted gross yearly income averaged over the three years preceding the certification does not exceed \$350,000, and the fair market value of all her assets does not exceed \$6 million. This status requires a certification.
Once you have qualified as a Small Business, please update your status within MFG.com by editing your certificates (scroll to the bottom of the page to view these new certificates). For those certifications that come with a document, be sure to upload your certificate.	

D3

Case Study Around First CAM Win

Title: Ottinger Machine Company Case Study

Source:

<http://www.mfg.com/sites/default/files/images/Case%20Studies/SS%20Ottinger%20DoD%20CAM%20Case%20Study%20Rev%201.2.13.pdf>

A local manufacturing company based in Indianapolis, IN, has made its mark on America's defense industrial base by being the first small business to win Department of Defense (DoD) contracts through the partnership between MFG.com and the Connecting American Manufacturing (CAM) program.

[Ottinger Machine Company](#), which opened for business in 1967, has witnessed substantial changes in the manufacturing industry as well as in the company itself. The firm, handed down from father to son in 1981, previously employed 30 people but is now operating with only three employees. The company wanted to look for ways to remain competitive during challenging economic times.

Jeffrey Ottinger, owner of the company, said, "Although the tough economy prompted us to start exploring new avenues for business opportunities, we didn't consider pursuing government work until we learned about the CAM program and MFG.com's support. We quickly won two contracts with the DoD, which were our first government contracts since we did some work for the Naval Avionics Center in Indianapolis about 30 years ago."

Streamlined Processes for Working with the DoD

Ottinger won its government contracts, primarily for automotive parts for the DoD, in September 2012 by taking advantage of the easy-to-use request for quote (RFQ) matching and quoting processes provided by MFG.com and the CAM program. The company had been a member of MFG.com since 2004 and recognized the benefit of providing quotes to the DoD through the online marketplace instead of the traditional methods of cold calling or sifting through mounds of government documents. "Once you understand the process, bidding on DoD opportunities is easy. But you have to do your homework," Ottinger said. "DoD solicitations often close quickly, so you have to move quickly. MFG.com makes it seamless."

The training offered by MFG.com is excellent, and it guided us through a process that would have been difficult without their help. Previously, there was often a six month learning curve involved with getting up-to-speed on government contracts. Now, all of that is greatly simplified thanks to this initiative. MFG.com and the CAM program help level the DoD playing field for small companies like ours."

Optimistic About the Future

While the DoD is paring down its budget by cutting back on some large projects, there continues to be a vast number of DoD opportunities for small- and medium-sized suppliers. Ottinger cautioned that it's important to make sure the solicitation involves products that align with the firm's capabilities, and that companies should look beyond the higher margin opportunities.

"While some opportunities may bring in only incremental business, they will help establish the firm as a trusted supplier to the DoD," Ottinger said.

"At Ottinger Machine Company, we have a simple philosophy of business: stay in business. With MFG.com and the CAM program, Ottinger is part of a team delivering a win-win scenario for U.S. suppliers, the DoD and those who serve our country in the military as well as in the business sector."

About MFG.com

MFG.com is the largest online marketplace for the manufacturing industry, facilitating interaction between buyers and suppliers. With more than \$115 billion in Requests for Quotes (RFQs) passing through the marketplace, MFG.com has helped thousands of suppliers—ranging from small single-person machine shops to large conglomerates—increase sales and grow profits. Investors include Bezos Expeditions, the personal investment company of Jeff Bezos, and Volition Capital. For more information, go to [MFG.com](https://www.mfg.com).

About CAM

The objective of the Connecting American Manufacturing (CAM) program is to help better connect DoD manufacturing needs with U.S. manufacturer capabilities. CAM will make it much easier for the DoD to find U.S. suppliers with the right capability and capacity at the right time. The program will also make it easier for U.S. suppliers to find and secure DoD opportunities that match their capabilities. This program is sponsored by the Office of the Secretary of Defense, Manufacturing and Industrial Base Policy, addressing the direct interests of the White House Office of Science and Technology.

D4

Visibility with Analyst Firms: Spend Matters

Source: <http://spendmatters.com/2012/08/03/mfgcom-lands-huge-department-of-defense-engagement-in-the-cloud/>

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September 26, 2012

MFG.com Lands Huge Department of Defense Engagement: in the Cloud!

August 3, 2012 2:00 PM | Categories: Public Sector, Procurement, Thomas Kase, Breaking News, Cloud

Headquartered in Atlanta, MFG.com has been active since 2000, building an online marketplace for the sourcing of components ranging from custom to standard parts, assemblies and textiles. In the process, they've built a global supplier network upward of 150,000 suppliers worldwide. The company has broadened its initial scope and now offers LiveSource, a sourcing suite, along with professional services. Clients range from large firms like Kimberly Clark (and after today's press release, the DoD) to mid-market organizations.

Technically speaking, the entity inking the deal on the gov't side is the U.S. Department of Defense Manufacturing Technology Program and the Office of the Secretary of Defense - but let's use the "DoD" moniker, it's so much shorter.

Nearly **\$800,000** is the year one price tag for the deal - public information, this disclosure is one of the downsides with selling to the gov't. This buys the DoD a customized version of MFG's LiveSource solution to address their MRO parts needs - delivered over the cloud! The DoD has a staggering annual \$1.50B spend for their MRO needs, so this account brings a huge pot of gold to the domestic portion of the MFG supplier network.

It is clear that the Defense Logistics Agency that owns this initiative is faced with the same challenges as many corporations with centralized procurement functions -- i.e., once you have done the 80/20 spend segmentation and removed already contracted spend, you still have a large tail that is awkward to manage effectively. And in the current environment where the DoD has to extend the life of their "warfighters" -- weapons delivery platforms -- since their CapEx budget for new machinery is under severe pressure, they will inevitably have to spend a good deal more on extending the life of their existing gear. Gear is the realm of aircraft carriers all the way down to much smaller equipment.

The DoD has identified or is working with 16,000 vendors for this spend right now, and they view their potential vendor pool as 100,000 vendors. So the incentives for MFG to substantially expand their vendor network as well as bring solid value to their existing members is significant.

The main driving force behind the DoD initiative is a realization that their bureaucracy is simply too difficult for smaller businesses to get through. MFG recently surveyed some of their suppliers and found that 62% are highly interested in working with the DoD, but only around 15% have recent (within three years) experience of actually working on DoD contracts.

As one measure to address this, MFG will add to or beef up their vendor registration and onboarding solution to better address the DoD's needs around engaging with qualified small and diverse businesses. Part of this process will also be typical sourcing cleanup efforts around breaking out common denominators (standard CoC, T&C centers, etc.) from the RFQs to be able to effectively engage with pre-approved vendors without subjecting them to repeat paperwork.

By broadening the qualified supplier base and streamlining the onboarding/qualification process, MFG expects to deliver significantly increased bid response numbers to the DoD. MFG's current average is 7.9 responses per RFQ, whereas speculatively speaking the DoD would probably be pleased to see two per RFQ. I can recall from working with the US Navy (NAVSUP) in the past that many RFQs for MRO work had only a single respondent.

It is exciting to see that even the stalwart DoD is willing to try out cloud solutions, and Spend Matters offers a big congratulations to MFG for landing this deal. We look forward to revisiting this. Assuming this works well at the DoD, the number of other federal agencies ready to adopt this approach will keep MFG busy for quite some time!

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A HYDRA-TECH GROUP AND HYDRA-TECH TOOLING

48

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Appendix E

E1

Monthly CAM Metrics Report – Oct 2012 (pg. 1)

Source: <http://www.mfg.com/sites/default/files/CAM-Metrics%20Report-10%20Oct%202012-v10.pdf>

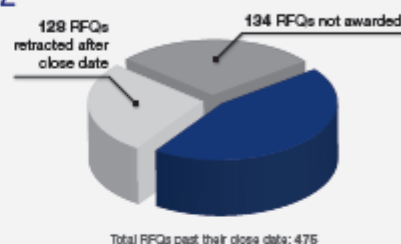


**CONNECTING
AMERICAN MANUFACTURING**



PROGRESS REPORT OCTOBER/NOVEMBER 2012

Working under the Connecting American Manufacturing (CAM) program, MFG.com is continually updating and improving the tools available to U.S. manufacturers in order to improve access to DoD opportunities. The company is enabling improved access and searching of DoD opportunities through its online sourcing tool, LiveSource. In addition, the company has continued to add member resources to the CAM website to further ease entry into the DoD contracting community.



In the initial phase, the CAM program is focused on two key challenges: (1) easing entrance into the DoD contracting community, and (2) pinpointing appropriate solicitations for individual manufacturers and simplifying the bidding process. MFG.com has already seen marked success with both goals as highlighted below.

OCTOBER/NOVEMBER OVERVIEW

In October and November, MFG.com continued to increase the number of qualified vendors taking part in the CAM program. These vendors bid on approximately 40 solicitations during this two-month period, including some that were cancelled after bids had been placed. Although we are continuing to see some success as the program moves forward, the company has seen some issues of concern, particularly with respect to retracted solicitations and communications with DoD points of contact.

INCREASED NUMBER OF SUPPLIERS

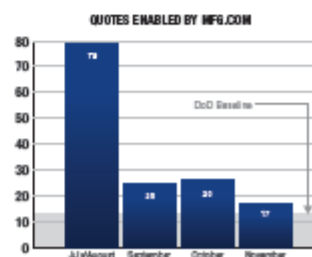
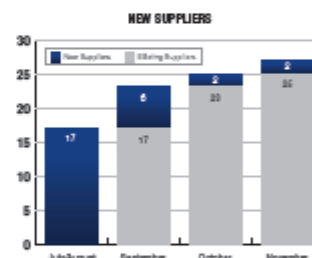
MFG.com has initiated multiple industry outreach campaigns and has increased

the number of suppliers within the CAM program. Currently, 27 suppliers have successfully gone through the registration process and begun bidding on solicitations as part of the CAM program. This is a good start and has already provided case studies to support increased participation in the program by other MFG.com suppliers.

Once enrolled in the program, suppliers are provided numerous resources to help qualify them as DoD contractors. The company has aggregated and simplified this information to streamline the supplier registration process.

Beyond the U.S., the company has initiated supplier outreach campaigns for the Canadian market. This broadened approach to supplier enrollment should result in further increases to the qualified supplier base.

While the number of qualified suppliers using the LiveSource system continues to grow, it is still a small percentage of the MFG.com user database. Through continued outreach and customer education campaigns, there is significant room for exponential growth in this area.



Progress Report October/November 2012

INCREASED BIDDING



Historically, many DoD solicitations had been posted with no response. It was for this reason that the CAM program was initiated. MFG.com recognized the problem and in some cases has enabled a four-fold increase in the number of bids per solicitation. To date, MFG.com has enabled 149 total bids and has increased the vendor pool by 27. During the October/November reporting period 279 solicitations were closed, 14 percent of which were bid on via LiveSource. To date, solicitations for DoD business have received up to four bids per solicitation—a significant improvement from historical responses.

One barrier to entry for small business manufacturers seeking to bid on DoD solicitations is uncertainty over what constitutes a competitive bid. MFG.com uses its extensive experience in the manufacturing marketplace to provide bid estimates for member suppliers.

REPEATED BIDDING



Once suppliers become qualified, they are quickly finding comfort with the LiveSource system. Not only are the majority of these suppliers placing bids via LiveSource, two-thirds of all bidding companies have placed multiple bids. During this reporting period, 64 percent of the qualified suppliers that placed bids via LiveSource have placed bids in previous months.

MATCHING CAPABILITY & CAPACITY TO DOD NEEDS

Through LiveSource, MFG.com is making the search and bidding process easier for suppliers. LiveSource makes all listed solicitations completely searchable. MFG.com has gone further to categorize solicitations into six relevant manufacturing categories.

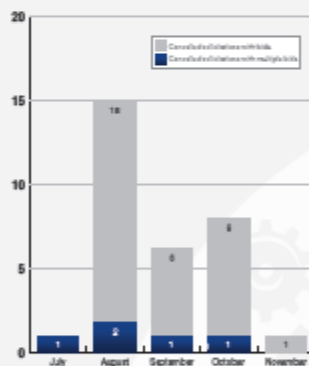
Qualified suppliers can easily down-select all RFQs to create a simple list of relevant solicitations for their capabilities.

RETRACTED SOLICITATIONS

Every month since MFG.com has been participating in the CAM program the DoD has cancelled solicitations on which qualified suppliers have bid. In some cases there have been bids from multiple qualified suppliers.

In October and November, 14 percent of the DoD solicitations listed in LiveSource were cancelled. Of those, nine had bids submitted by MFG.com suppliers and one had multiple bids. These cancellations comprise a significant hurdle for MFG.com and others in the program.

CANCELLED SOLICITATIONS WITH LIVESOURCE BIDS



MFG.com continues to work hard to connect suppliers with information about solicitations that have historically gone unanswered. MFG.com has sent emails requesting information about the reasons for cancelling on every solicitation that had open bids; however, only two of these inquiries have been answered. When a supplier or suppliers have gone through the work of submitting a bid it becomes difficult to sustain enthusiasm for the opportunity when a solicitation gets cancelled without a stated reason.

POINTS OF NOTE

The data collected contains some notable points that should be highlighted to add context to the overall goal of bringing DoD opportunities to U.S. manufacturers.

Within the solicitations bid via LiveSource, seven contracts were awarded to overseas firms. Six of those seven awards had a final contract price less than 50 percent of the amount bid by the U.S. firm. Many of those awards were for significantly less than 50 percent of the LiveSource bid price.

With that great disparity in quoted prices, it is unlikely that U.S. companies could ever win similar solicitations on price alone.

Five solicitations were awarded to firms that bid more than the amount bid by firms in LiveSource. One of these can be disregarded as the company failed to provide confirmation within the solicitation's time constraints.

In the commercial space, 95 percent of all solicitations lead to an award. In addition, these contracts are generally awarded within five business days. The lengthy award process for DoD solicitations is a hurdle that can be overcome through ongoing communication with the supplier base. When DoD solicitations are cancelled without feedback, suppliers are more likely to return to commercial business with which they are more familiar and can count on.

LOOKING FORWARD

Moving forward, MFG.com is continuing its supplier outreach campaigns to increase the supplier base as well as the number of bids being placed. In addition, the company has begun to track additional supplier metrics in order to provide enhanced resources to suppliers as well as increased information for subsequent program reviews.

E2

Monthly CAM Metrics Report – Dec 2012 (pg. 1)

Source: <http://www.mfg.com/sites/default/files/CAM-Metrics%20Report-12%20Dec%202012-v07.pdf>



**CONNECTING
AMERICAN MANUFACTURING**



PROGRESS REPORT DECEMBER 2012

The Connecting American Manufacturing (CAM) program was put in place to improve the tools available to U.S. manufacturers in order to increase access and bidding on DoD solicitations. MFG.com has accomplished this through its online sourcing tool, LiveSource. In addition, the company has continued to add member resources to the CAM website to further ease entry into the DoD contracting community. However, ongoing issues with communication and solicitation listings have stunted the growth of what otherwise could be a very successful program.

Total number of RFQs: **638**



As in previous months, solicitations with bids continued to be retracted by the DoD with no explanation provided. MFG.com also continued to see lengthy award timelines, extending well past solicitation close dates with little, if any, communication from points of contact within the DoD. Both of these issues continue to frustrate vendors and affects their bidding behavior.

RETRACTED SOLICITATIONS

Every month since MFG.com has been participating in the CAM program, the DoD has cancelled solicitations on which qualified suppliers have bid. In some cases there have been bids from multiple qualified suppliers.

In December, six of the DoD solicitations listed in LiveSource were cancelled, including one that had bids submitted by MFG.com suppliers. These cancellations comprise a significant hurdle for MFG.com and others in the program.

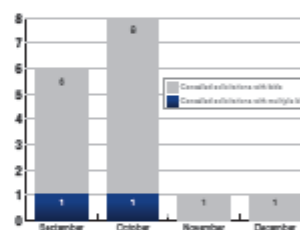
MFG.com sent emails requesting information about the reasons for cancelling on every solicitation that had open bids. To date, only two of these inquiries have been answered. When a supplier or suppliers go through the work of submitting a bid, it becomes difficult to sustain enthusiasm for the opportunity when a solicitation gets cancelled without a stated reason.

UNAWARDED CLOSED CONTRACTS

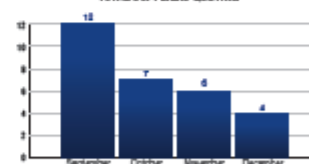
Since MFG.com has been supporting the CAM program, numerous contracts have gone unawarded for a significant period of time after the solicitation close date. Three of the solicitations bid on in December were still not awarded by the end of the month, two-plus weeks after the solicitation close date. To date, nine of the solicitations bid on via LiveSource have yet to be awarded. Three of those nine had close dates in September. After repeated outreach to the DoD, information concerning these solicitations has still not been provided.

In the commercial space, 95 percent of all solicitations lead to an award. In addition, these contracts are generally awarded within five business days. To wait more than three months for information on a contract award without any follow up communication is unheard of. That said, the lengthy award process for DoD solicitations is a hurdle that can be overcome through ongoing communication with the supplier base. Without communication, vendors lose interest in the process. In addition, when DoD solicitations are cancelled without feedback, suppliers are more likely to return to commercial business with which they are more familiar and considered more reliable.

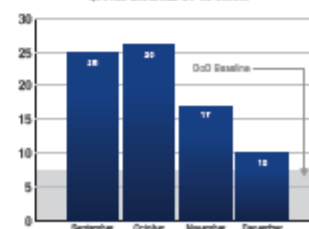
CANCELLED SOLICITATIONS WITH LIVESOURCE BIDS



TOTAL SUPPLIERS QUOTING



QUOTES ENABLED BY MFG.COM



PROGRESS REPORT DECEMBER 2012

INCREASED BIDDING

Historically, many DoD solicitations had been posted with no response. It was for this reason that the CAM program was initiated. MFG.com recognized the problem and in some cases has enabled a four-fold increase in the number of bids per solicitation. To date, MFG.com has enabled 157 total bids and has increased the vendor pool by 29. During the December reporting period, 72 solicitations were closed, 14 percent of which were bid on LiveSource.

One barrier for small business manufacturers seeking to bid on DoD solicitations is uncertainty over what constitutes a competitive bid. MFG.com uses its extensive experience in the manufacturing marketplace to provide bid estimates for member suppliers.

REPEATED BIDDING

19 OUT OF 29
SUPPLIERS PLACED MULTIPLE BIDS

Once suppliers become qualified, they quickly find comfort with the LiveSource system. Not only are the majority of these suppliers placing bids via LiveSource, two-thirds of all bidding companies placed multiple bids since the beginning of the program. During this reporting period, 50 percent of the qualified suppliers that placed bids via LiveSource placed bids in previous months.

MATCHING CAPABILITY & CAPACITY TO DOD NEEDS

Through LiveSource, MFG.com is making the search and bidding process easier for suppliers. LiveSource makes all listed solicitations completely searchable. MFG.com has gone further to categorize solicitations into six relevant manufacturing categories. Qualified suppliers can easily down-select all RFQs to create a simple list of relevant solicitations for their capabilities.

DECEMBER SUCCESSES

Due to year-end holidays, the number of business days in the month of December decreased, which affected the amount of new business capable of being undertaken. Even so, MFG.com continued to increase the number of qualified vendors taking part in the CAM program and MFG.com enabled 10 bids on nine different solicitations.

INCREASED NUMBER OF SUPPLIERS

Ongoing educational outreach continues to increase the number of vendors interested in the CAM program. December saw the addition of two new vendors successfully completing the registration process to bid on solicitations. To date, MFG.com has supported 29 new vendors in the CAM program.

Once enrolled in the program, suppliers are provided numerous resources to help qualify them as DoD contractors. MFG.com has aggregated and simplified this information to streamline the supplier registration process.

Beyond the U.S., MFG.com continued supplier outreach campaigns for the Canadian market. This broadened approach to supplier enrollment should result in further increases of the qualified supplier base.

While the number of qualified suppliers using the LiveSource system continues to grow, it is still a small percentage of the MFG.com user database. Through continued outreach and customer education campaigns, there is significant room for growth in this area.

LOOKING FORWARD

Moving forward, MFG.com is continuing its supplier outreach campaigns to increase the supplier base as well as the number of bids being placed. In addition, the company began tracking additional supplier metrics in order to provide enhanced resources to suppliers as well as increased information for subsequent program reviews. However, issues concerning lack of transparency and absence of communication with DoD liaisons must be addressed if the program is expected to grow.



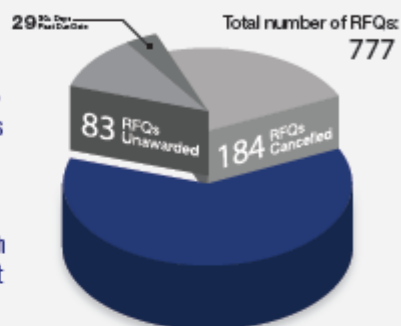


CONNECTING AMERICAN MANUFACTURING



PROGRESS REPORT FEBRUARY 2013

The Connecting American Manufacturing (CAM) program was put in place to improve the tools available to U.S. manufacturers in order to increase access and bidding on DoD solicitations. MFG.com successfully implemented these capabilities through its online sourcing tool, LiveSource. In addition, the company continues to add member resources to the CAM website to further ease entry into the DoD contracting community. However, ongoing issues with communication and solicitation listings continue to stunt the growth of what could otherwise be a very successful program.



In February, we saw a new issue that caused some concern. A new solicitation was posted with a close date of March 11, 2013. However, this contract was awarded to a foreign supplier well before the close date was reached. The CAM program was designed to help increase the number of U.S. manufacturers winning DoD contracts. The fact that a manufacturing solicitation was pre-awarded to a foreign company is a significant cause for concern.

As in previous months, lengthy award timelines, extending well past solicitation close dates, continue to be a problem. Though MFG.com continues to reach out for additional information, there is little, if any, communication from the relevant points of contact within the DoD. Issues such as this continue to frustrate vendors and affect their bidding behavior.

RETRACTED SOLICITATIONS

For the first time since MFG.com's participation in the CAM program, no new solicitations with LiveSource bids were cancelled. Considering the frustration these cancellations have caused vendors in past months, this is considered an important achievement for the program. However, several old solicitations with close dates

well over thirty days were cancelled. Of those older solicitations, three were cancelled that had bids via the LiveSource system, one of which had a close date from five months previous. Once again, the lack of communication with liaisons in the DoD resulted in a frustration with the system that threatens to become apathy.

UNAWARDED CLOSED CONTRACTS

Since MFG.com has been supporting the CAM program, numerous contracts went unawarded for a significant period of time after the solicitation close date. As of the end of February, 29 solicitations were still open more than thirty days past their close date, including two solicitations bid on via LiveSource. One of those solicitations with a bid is over 90 days past its due date.

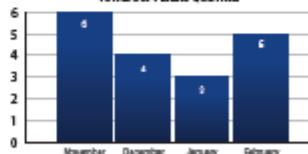
In the commercial space, 95 percent of all solicitations lead to an award. In addition, these contracts are generally awarded within five business days. It is rare to wait more than three months for information on a contract award without any follow up communication. As such, the lengthy award process for DoD solicitations is a hurdle that can be overcome through ongoing communication with the supplier base. Without communication, vendors lose interest in the process. In addition, when

DoD solicitations are cancelled without feedback, suppliers are more likely to return to the commercial business with which they are more familiar and consider more reliable.

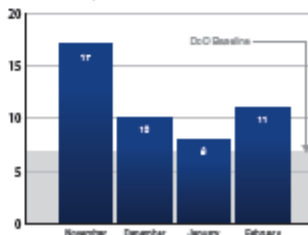
CANCELLED SOLICITATIONS IN FEBRUARY



TOTAL SUPPLIERS QUOTING



QUOTES ENABLED BY MFG.COM



PROGRESS REPORT FEBRUARY 2013

INCREASED BIDDING

Historically, many DoD solicitations were posted with no response. It was for this reason that the CAM program was initiated. MFG.com recognized the problem and in some cases enabled a four-fold increase in the number of bids per solicitation. To date, MFG.com enabled 176 total bids and has increased the vendor pool by 34. During the February reporting period, 11 percent of the new solicitations entered into LiveSource had bids enabled by MFG.com.

To aid this process, MFG.com uses its extensive experience in the manufacturing marketplace to provide bid estimates for member suppliers. This assistance helps small business manufacturers seeking to bid on DoD solicitations overcome one of the hurdles that would otherwise prevent them from working with the DoD.

REPEATED BIDDING

Once suppliers become qualified, they are quickly finding comfort with the LiveSource system. Not only are the majority of these suppliers placing bids via LiveSource, two-thirds of all bidding companies have placed multiple bids since the beginning of the program. During this reporting period, five vendors placed bids including two vendors with previous experience in the CAM program. Of the three newly qualified vendors, two placed over half of all the bids submitted via LiveSource in February.

MATCHING CAPABILITY & CAPACITY TO DOD NEEDS

Through LiveSource, MFG.com is making the search and bidding process easier for suppliers. LiveSource makes all listed solicitations completely searchable. MFG.com went further to categorize solicitations into six relevant manufacturing categories. Qualified suppliers can easily down-select all RFQs to create a simple list of relevant solicitations for their capabilities.

FEBRUARY SUCCESSES

In February, MFG.com continued to increase the number of qualified vendors taking part in the CAM program, increased the number of vendors placing bids during the month and enabled eleven new bids.

INCREASED NUMBER OF SUPPLIERS

Ongoing educational outreach continues to result in an increase in the number of vendors interested in the CAM program. February saw the addition of three new vendors successfully completing the registration process to bid on solicitations. To date, MFG.com has supported 34 new vendors in the CAM program.

Once enrolled in the program, suppliers are provided numerous resources to help qualify them as DoD contractors. MFG.com aggregated and simplified this information to streamline the supplier registration process.

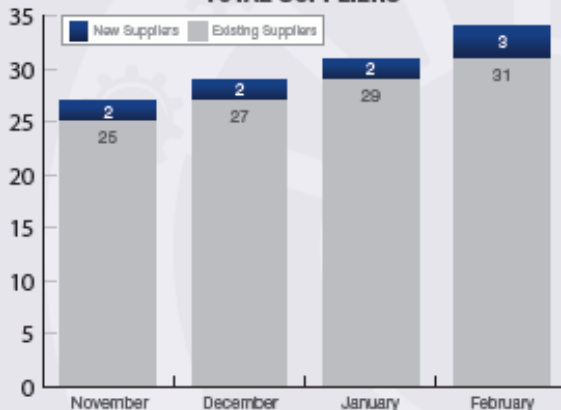
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While the number of qualified suppliers using the LiveSource system continues to grow, it is still a small percentage of the MFG.com user database. Through continued outreach and customer education campaigns, there is significant room for growth in this area.

LOOKING FORWARD

Moving forward, MFG.com is continuing its supplier outreach campaigns to increase the supplier base as well as the number of bids being placed. In addition, the company tracks additional supplier metrics in order to provide enhanced resources to suppliers as well as increased information for program reviews. However, issues concerning lack of transparency, the absence of communication with DoD liaisons, and delays in contract awards must be addressed if the program is expected to grow.

TOTAL SUPPLIERS



E4

Monthly CAM Metrics Report – Mar 2013 (pg. 1)

Source: <http://www.mfg.com/sites/default/files/CAM-Metrics%20Report-03%20Mar%202013-v03.pdf>

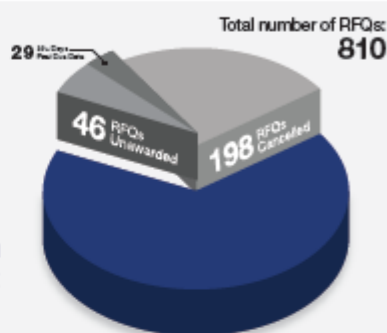


CONNECTING AMERICAN MANUFACTURING



PROGRESS REPORT MARCH 2013

The Connecting American Manufacturing (CAM) program was put in place to improve the tools available to U.S. manufacturers in order to increase access and bidding on DoD solicitations. MFG.com successfully implemented these capabilities through its online sourcing tool, LiveSource. In addition, the company continues to add member resources to the CAM website to further ease entry into the DoD contracting community. However, ongoing issues with communication and solicitation listings continue to stunt the growth of what could otherwise be a very successful program.

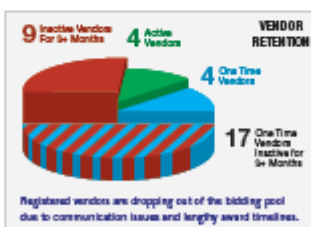


LACK OF COMMUNICATION

Since MFG.com has been taking part in the CAM program, the nature of communications (or lack thereof) with representatives at the DLA has caused ongoing frustration not only for the team members at MFG.com, but also for vendors. As questions and issues have arisen, MFG.com has continuously reached out to DLA representatives to find answers. Many of these requests have gone unanswered. When answers are received, many times it is much too late to affect a solution.

In one case study, a question was passed along from a registered vendor concerning a specific solicitation. A response was received six weeks after the solicitation was closed and even then didn't provide an answer to the question. The almost complete lack of client service has resulted in many vendors backing out of the program.

MFG.com has registered 34 total vendors as part of the CAM program. Of those, 26 have not placed a bid in the last three months and 21 vendors only placed bids in their first month of program membership. This lack of retention can be attributed to a failure in communication with the DLA and lengthy award timelines.



Month after month, MFG.com has shown that the LiveSource system is easy to learn and use. This can be seen

in the overwhelming majority of vendors placing multiple bids as soon as they become registered members of the CAM program. However, ease of system use cannot replace all communication needs. Participating vendors have repeatedly stated that the lack of communication and the lengthy award timelines hinder their ability to do business with the DoD. Without the complete support of the DLA, these are hurdles that MFG.com is unable to surmount.

MARCH RESULTS

With the compound issues concerning communication and lengthy award timelines, March was a lackluster month. March saw the addition of no new vendors and only one new bid placed.

UNAWARDED CLOSED CONTRACTS

Since MFG.com has been supporting the CAM program, numerous contracts have gone unawarded for a significant period of time after the solicitation close date. As of the end of March, 26 relevant solicitations listed in the LiveSource system were still open more than thirty days past their close date, including two solicitations with bids. (CONTINUED ON BACK)

CANCELLED SOLICITATIONS IN MARCH



PROGRESS REPORT MARCH 2013

(CONTINUED FROM FRONT)

The issue of lengthy award timelines could be overcome through ongoing communication between the DLA and the supplier base. As things stand, however, vendors are losing interest in the process and are reverting to their known customers in the commercial space which they consider to be a more reliable market.

RETRACTED SOLICITATIONS

In March, 14 solicitations were cancelled. Of these, 11 were more than 30 days past their close date, including five that were more than 90 days past their close date. One cancelled solicitation had a bid placed via the LiveSource system and once again, no information concerning the cancellation was provided to either MFG.com or the bidding vendor.



MATCHING CAPABILITY & CAPACITY TO DOD NEEDS

Through LiveSource, MFG.com continues to make the search and bidding process easy for suppliers. LiveSource makes all listed solicitations completely searchable. MFG.com has gone further to categorize solicitations into six relevant manufacturing categories. Qualified suppliers can easily down-select all RFQs to create a simple list of relevant solicitations for their capabilities. If the time comes when small-business vendors feel comfortable that DLA will enable reasonable award timelines and/or provide ongoing communication concerning closed solicitations, LiveSource has the proven capability to be a viable digital marketplace for DoD manufacturing needs.

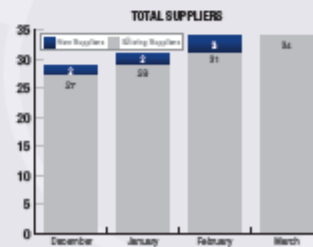
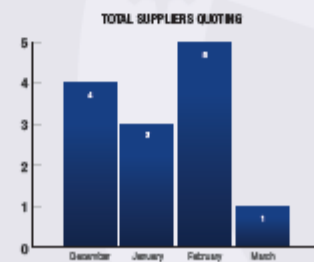
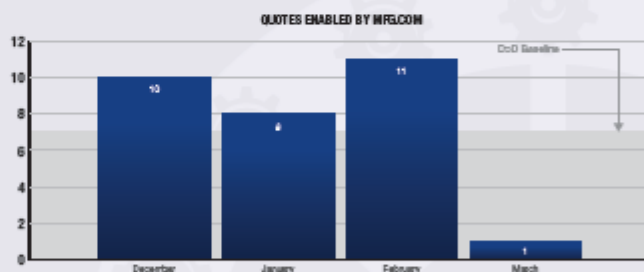
LOOKING FORWARD

Moving forward, MFG.com is continuing its supplier outreach campaigns to increase the supplier base as well as the number of bids being placed. In addition, the company tracks additional supplier metrics in order to provide enhanced resources to suppliers. However, issues concerning lack of transparency, the absence of communication with DLA liaisons, and delays in contract awards must be addressed if the program is expected to grow.

To truly make the CAM program a success and attract and retain small-business manufacturers, DLA representatives must provide more timely responses to contract inquiries. Lack of communication breeds confusion, frustration, and, ultimately, the loss of active vendors.

Further, the number of retracted solicitations must be reduced. MFG.com representatives have learned that many solicitations are automatically generated via inventory control systems. Unfortunately, these systems post manufacturing needs that don't really exist. As a result, many solicitations garner bids before a human intervenes to retract the solicitation. This only adds to the confusion and frustration felt by participating vendors.

If these issues can be resolved, the CAM program will be able to flourish.



E5

Monthly CAM Metrics Report – May 2013 (pg. 1)

Source: <http://www.mfg.com/sites/default/files/CAM-Metrics%20Report-05%20May%202013-v02.pdf>

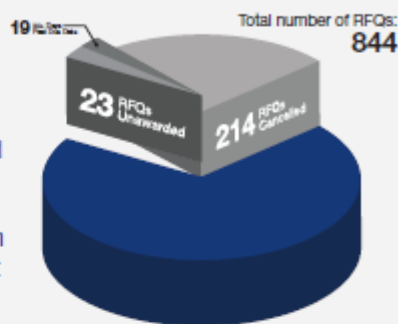


CONNECTING AMERICAN MANUFACTURING



PROGRESS REPORT MAY 2013

The Connecting American Manufacturing (CAM) program was put in place to improve the tools available to U.S. manufacturers in order to increase access and bidding on DoD solicitations. MFG.com successfully implemented these capabilities through its online sourcing tool, LiveSource. In addition, the company continues to add member resources to the CAM website to further ease entry into the DoD contracting community. However, ongoing issues with communication and solicitation listings continue to stunt the growth of what could otherwise be a very successful program.



LACK OF COMMUNICATION

Since MFG.com has been taking part in the CAM program, the nature of communications (or lack thereof) with representatives at the DLA has caused ongoing frustration not only for the team members at MFG.com, but also for vendors. As questions and issues have arisen, MFG.com has continuously reached out to DLA representatives to find answers. Many of these requests have gone unanswered. When answers are received, many times it is much too late to affect a solution.

In one case study, a question was passed along from a registered vendor concerning a specific solicitation. A response was received six weeks after the solicitation was closed and even then didn't provide an answer to the question. The almost complete lack of client service has resulted in many vendors backing out of the program.

MFG.com has registered 34 total vendors as part of the CAM program. Of those, 33 have not placed a bid in the last three months and 21 vendors only placed bids in their first month of program membership. This lack of retention can be attributed to a failure in communication with the DLA and lengthy award timelines.

Month after month, MFG.com has shown that the LiveSource system is easy to learn and use. This can be seen in the overwhelming majority of vendors placing multiple bids as soon as they become registered members of the CAM program. However, ease of system use cannot replace all communication needs. Participating vendors have repeatedly stated that the lack of communication and the lengthy award timelines hinder their ability to do business with the DoD. Without the complete support of the DLA, these are hurdles that MFG.com is unable to surmount.

MAY RESULTS

With the compound issues concerning communication and lengthy award timelines, May continued the trend of lackluster results. May saw the addition of no new vendors or new bids placed.

UNAWARDED CLOSED CONTRACTS

Since MFG.com has been supporting the CAM program, numerous contracts have gone unawarded for a significant period of time after the solicitation close date. As of the end of May, 19 relevant solicitations listed in the LiveSource system were still open more than thirty days past their close date, including two solicitations with bids enabled by MFG.com.

The issue of lengthy award timelines could be overcome through ongoing communication between the DLA and the supplier base. As things stand, however, vendors are losing interest in the process and are reverting to their known customers in the commercial space, which they consider to be a more reliable market.

CANCELLED SOLICITATIONS IN MAY



PROGRESS REPORT MAY 2013

RETRACTED SOLICITATIONS

In May, 8 solicitations were cancelled. Of these, 6 were more than 30 days past their close date, including 4 that were more than 90 days past their close date. One solicitation that was more than 90 days past its close day had a bid enabled by MFG.com. As has continued to be the case, no information was provided to either the vendor or MFG.com concerning the reason for the cancellation.

MATCHING CAPABILITY & CAPACITY TO DOD NEEDS

Through LiveSource, MFG.com continues to make the search and bidding process easy for suppliers. LiveSource makes all listed solicitations completely searchable. MFG.com has gone further to categorize solicitations into six relevant manufacturing categories. Qualified suppliers can easily down-select all RFQs to create a simple list of relevant solicitations for their capabilities. If the time comes when small-business vendors feel comfortable that DLA will enable reasonable award timelines and/or provide ongoing communication concerning closed solicitations, LiveSource has the proven capability to be a viable digital marketplace for DoD manufacturing needs.



REPEATED BIDDING

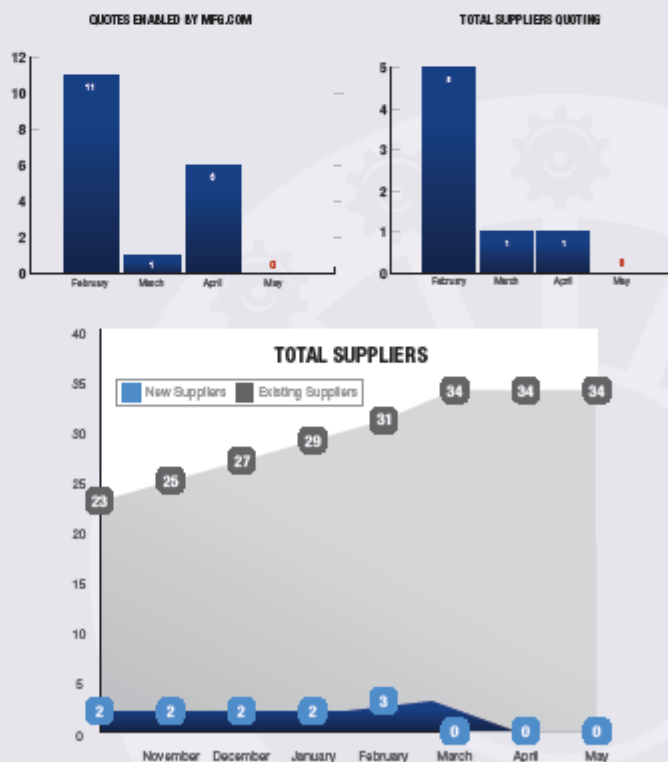
Even with all the hurdles that still need to be overcome, LiveSource has proven to be a viable, easy to use online marketplace for manufacturers seeking to work with the DoD. Once suppliers become qualified in the CAM program, they have quickly found comfort with the LiveSource system. Not only have the majority of these suppliers placed bids via LiveSource, two-thirds of all bidding companies have placed multiple bids since the beginning of the program.

LOOKING FORWARD

Moving forward, MFG.com is continuing its supplier outreach campaigns to increase the supplier base as well as the number of bids being placed. In addition, the company tracks additional supplier metrics in order to provide enhanced resources to suppliers.

However, issues concerning lack of transparency, the absence of communication with DLA liaisons, and delays in contract awards must be addressed if the program is expected to grow. To truly make the CAM program a success and attract and retain small-business manufacturers, DLA representatives must provide more timely responses to contract inquiries. Lack of communication breeds confusion, frustration, and, ultimately, the loss of active vendors.

If these issues can be resolved, the CAM program will be able to flourish.



E6

Reverse Engineering Status Report – June 2013

MFG.com June 2013 Status Report - Contract # FA8650-12-C-5516

July 11th, 2013

Listing of MFG.com accomplishments against our contract # FA8650-12-C-5516

Date range: June 11th – July 11th 2013

Invoice amount to be submitted: \$123,665

Here are our accomplishments for the first month of the extension 2013:

- Attended meeting at DLA to review process for phase two of the project
- Requested 11 parts for bailment process
- Compiled information regarding the bailment feedback process and available parts
- Engaged AMCOM to discuss sole-sourced parts and parts available for reverse engineering
- Secured reverse engineering equipment
- Engaged 10 suppliers to discuss role in reverse engineering program
- Created announcement for RFQs once parts secured for bidding
- Prepared for multiple meetings with Dr. Kenneth Sullivan
- Created content for Dr. Kenneth Sullivan to use during ESA meeting
- Held a meeting with Tinker ESA to discuss sole-sourced parts and process

E7

Reverse Engineering Status Report – July 2013

MFG.com July 2013 Status Report - Contract # FA8650-12-C-5516

August 11th, 2013

Listing of MFG.com accomplishments against our contract # FA8650-12-C-5516

Date range: July 11th – August 11th 2013

Invoice amount to be submitted: \$29,294

Here are our accomplishments for the first month of the extension 2013:

Made connections with Tinker ESAs to discuss part availability

- Reached out to four different San Diego ESAs
- Engaged multiple DLA representatives at Richmond and Columbus to identify new parts for bailment
- Reviewed all bailment parts to find which had technical drawings to enable reverse engineering QC
- Processed and followed progress of 18 parts for bailment process
- Received bailment approval for 5 parts
- Multiple engagements with AMCOM to discuss sole-sourced parts and parts available for reverse engineering
- Secured reverse engineering equipment
- Engaged additional suppliers to discuss role in reverse engineering program
- Created announcement for RFQs once parts secured for bidding
- Prepared for multiple meetings with Dr. Kenneth Sullivan
- Created new content for Dr. Kenneth Sullivan to use during ESA meeting

E8

Reverse Engineering Status Report – August 2013

MFG.com August 2013 Status Report - Contract # FA8650-12-C-5516

September 11th, 2013

Listing of MFG.com accomplishments against our contract # FA8650-12-C-5516

Date range: August 11th – September 11th 2013

Invoice amount to be submitted: \$29,294

Here are our accomplishments for the first month of the extension 2013:

- Worked with DLA to confirm additional parts to use for reverse engineering process
- Met with Kenneth Sullivan to engage AMCOM in Huntsville on four parts
- Engaged multiple DLA representatives Columbus to identify more parts for bailment
- Processed all the necessary documents for bailment and sent out bailment checks
- Received five parts for reverse engineering
- Worked with Steve Kelly at DLA to process additional sole-source parts
- Began processing the reverse engineering of the five parts received in at MFG.com
- Started releasing parts into the marketplace for quoting to start the sole-source price comparison review
- Met with Kenneth Sullivan to develop the outline for the final CAM report submission
- Started preparation for final report creation and submission

Appendix F

F1

Packaging Mil-Spec Cheat Sheet

Source: <http://www.mfg.com/sites/default/files/MIL-STD-2073-1D-Pckg-Cheat-Sheet.pdf>

F2

Packaging Mil-Spec DoD Original

Source: <http://www.mfg.com/sites/default/files/MIL-STD-2073-1D.pdf>

F3

American Machinist Article

Title: 3D CAD has become a "must have"

Date: 11/19/07

Source: <http://americanmachinist.com/features/3d-cad-has-become-must-have>