

OPPORTUNITY KNOCKS

Ashley Lane reports on the growing opportunities for small businesses in the US security and defence sectors

With some 30 million small businesses in the USA employing around 57 million people and accounting for 99 percent of the US business cohort, the need for SME access to Government is self-evident as a major potential source of business.

In the closely allied areas of national security, policing and the military, which account for a substantial slice of GDP, the degree of innovation and technical advancements offered by the SME sector is a resource which Government has recognised. More than 4 million small businesses in the US specialise in the professional, scientific and technical services disciplines and these help to deliver against the dynamics of a market, which is always hungry for technological breakthrough and measurable benefits.

THERE IS NO OTHER PROGRAM THAT MOVES FROM CONCEPT TO DEPLOYMENT SO QUICKLY

The relationship is mutually beneficial. Government, law enforcement and the military have both the need for technical excellence and the budgets to support development costs. Small businesses are agile, competitive and capable of responding to rapid changes in the operating environment. Where necessary and appropriate they can also broker partnerships with global associates, providing the 'local' expertise and rapport necessary to establish trust between the parties. This kind of relationship offers a broader sweep of the provider community, but with the reassurance of a home-grown business 'delivering the goods'.

USSOCOM's Office of Small Business Programs (OSBP) is designated to advocate on behalf of small businesses and as such has a mission to meet the goals determined by Congress and the Office of the Secretary of Defense. Its declared ambitions include ensuring equal opportunities for such companies to do business and within its structure lies the Technology and Industry Liaison Office (TILO). This group provides the SME with a conduit, which operates to present relevant business capabilities to Program Office Executives (POEs), Center Directors and other interested parties.

A further link in the chain between presenting new ideas and securing contracts is the SOFWERX organisation, an unclassified Doolittle Institute Facility

where Government and the Department of Defense collaborate with both academia and industry for networking briefings and presentations.

Together USSOCOM, TILO and SOFWERX, provide a continuum between the germination of an idea and its acceptance for proving and field trials. TILO's remit is to match a company's product, service or capability to the right people within the command and to set up whatever discussions or demonstrations may be requested, while SOFWERX provides the physical resources and locations to ensure projects move forward quickly and efficiently. Meeting times can be organised with a minimum of 24 hours advance notice.

The SOFWERX set up offers a service designed by a Partnership Intermediary Agreement between the Doolittle Institute and USSOCOM. This development and co-operation model has proven itself on many occasions. Despite the several, necessary steps in the process and the different organisations combining to execute it, the program runs efficiently and with clearly defined stages and milestones, both provider and command are fully apprised of progress at all times. What's more, the demanding deadlines bring out the best from the SME community, with the 'adrenalin-flow' stimulated by a competitive supply environment and a significant business opportunity in sight.

SOFWERX operates across the STEM (Science, Technology, Engineering and Mathematics) domain and hosts a range of related events along with offering an Industry Fellowship Program and internships to both juniors and seniors in college across a range of fields including computer science, mechanical engineering, graphic design, robotics and data analytics.

As far back as 2012, *Forbes* magazine ran an article by Rodney C Adkins, then senior vice president of IBM's systems and technology group and an inductee of the National Academy of Engineering. In a telling piece he identified the need for more STEM students in the US and the importance of this for the country.

"There is no doubt that to advance our economy and our society we need to create the next great technology innovations, not just conserve them. That's why there is such urgency for the US to develop a stronger workforce of experts in science, technology, engineering and maths. After all, according to the US Department of Labor, only 5 percent of US workers are employed in fields related to science and engineering, yet they are responsible for more than 50 percent of our sustained economic expansion."



TILO's remit is to match an SME's product, service or capability to the right people

Since then considerable strides forward have been made. In 2016, *Forbes* reported about the fact that the top 21 STEM colleges in the magazine's best value list averaged 50 spots better than they did on the general rankings. STEM is clearly becoming great value for tuition dollars. The role of the military college was evident in the rankings, with the United States Naval Academy in second place of America's top colleges and the United States Air Force Academy not far behind in fifth.

This recognition of the STEM role has undoubtedly contributed to the ability range and energy of SME providers into the procurement process that falls within the remit of TILO and SOFWERX.

When the business of analytics is on the agenda, the value to the defence and security communities from the techniques embodied in digital forensics come to the forefront. Evidence Talks' technologies are used by law enforcement, Government agencies, the military and large corporates too. At the heart of this technology the SPEKTOR group of products offers frontline officers the ability to rapidly and forensically triage and review targeted data, including images. In a recent case of mobile phone thefts, for example, just one non-technical law enforcement officer with no background in digital forensics was able to recover, image and collect evidence from no fewer than 47 suspect devices, reducing the critical evidence to six key items and identifying 45,000 unique stolen mobile phones via their (IMEIs) International Mobile Equipment Identification numbers.

Working in partnership with its US associates, it has experience of the demands, and efficacy, of the US system. Leveraging its ability to produce a triage tool of the highest evidential value, while being able to rely on partners on the ground, Evidence Talks entered the process in a good position. These combining factors played a key role in helping it meet TILO's rigorous process requirements.

STREAMLINING THE PROCESS

In line with its mission to match proposed solutions from SMEs to the most prevalent operational requirements of groups within the sector, TILO has established different methods for streamlining the process to best effect.

In the first instance, prospective suppliers are required to submit ideas in a short presentation, referred to as a 'quad'. Divided into four sections, the quad contains information on the problem being addressed, along with a brief description of a solution, contact details and a rating – from one to nine – indicating the solution's Technology Readiness Level (TRL). With a one rating denoting an idea or concept, our quad was submitted with a nine in line with the accepted, commercial viability of the technologies.

Once the initial assessment is complete, TILO determines whether to take the proposition through to review. With support from SOFWERX, TILO co-ordinates meetings and demos, providing valuable

insight into the Command's needs and capability demands, where prototypes can be tested for feedback.

SOFWERX co-ordinates the next phase in one of two ways. The first is in the form of unclassified, publicly available events, which provide an opportunity for client groups to seek solutions from the supplier community that are more closely matched to their operational requirements. Typically, in these environments a Program Office Executive, Program Managers and representatives from the client user community will be involved in these public forums where suppliers present their ideas in an open format.

Alternatively, suppliers may be invited, and can on occasion, apply to take part in SOFWERX challenges. These involve the supplier conducting research and development off-site in the run up to a two-day event held at SOFWERX facilities, where suppliers work collaboratively in pursuit of a common goal. This idea of collaborative working and the sharing of knowledge and expertise across different disciplines, industries and skill sets provides a highly effective way of reaching the best possible outcome as quickly as possible.

PRESENTING TO END USERS

Two weeks after its initial submission, Evidence Talks was invited to deliver an hour presentation based on the quad to interested parties, including potential end users, in an unclassified format. For this particular project, a solution to a general challenge was being sought and competitive analysis across multiple suppliers and product offerings was undertaken. Once the presentations are given it can take around three months before feedback is provided. However, on this occasion it moved into the next stage in just a month.

At this point, delivery of five of our systems and training for five of the interested party's trainers was given in a single, eight-hour training session. The

onus, therefore, fell on imparting as much information as possible about Evidence Talks' technical capabilities and benefits in a short timescale.

The client's trainers are expected to cascade training on the system down to five different teams, who are given access to the equipment for testing. Ordinarily, this process involving a thorough scientific and technical evaluation of the system can take six months. If the trial proves successful and depending on the level of maturity of the solution, it is then fielded into an operational environment; which again can take an average six months.

Reaching a positive outcome from the field trials may result in the system being considered for purchase and subsequently put through an Engineering Control Change Board, ready for operational deployment.

While the user group assessments and operational field trial programs tend to be performed in a 12-month period, in an unexpected turn of events, just two months after it provided the initial training to the client's own trainers and in advance of the user assessments, Evidence Talks received a substantial order of its solution.

While the system was not destined for immediate implementation in the field and was still subject to the usual fielding activities, this marked a significant reduction in the time traditionally taken in meeting some of TILO's key milestones.

In my view, there is no other program like the USSOCOMTILO/SOFWERX process that so comprehensively moves from concept to deployment of material, which makes such an important contribution to the effectiveness of the nation's Defense and Security sectors. Neither the rate of delivery nor the thoroughness of proving and field trips is neglected, nor does one inhibit the other. This program strikes the optimum balance between progress and process, supporting the growth of the SME community and promoting excellence across the US security and defence sectors ●

Ashley Lane was recently appointed Chief Executive Officer of Evidence Talks. His track record combines achievements in converting technologies into successful business propositions with significant expertise in cyber security, information management and digital forensics services, along with software and electronics product development.



Evidence Talks presents some of its technologies to interested parties