

SURVIVING THREATS IN CYBERSPACE AND THE TOUGH WORLD OF BUSINESS

VIGILANT CYBER SYSTEMS stands on the front lines that protect the country from cyber threats – attacks on the nation’s computer and technology systems. While facing these technical challenges they also navigate the challenging terrain that nearly every early stage technology company confronts – the gap between its start and winning a large enough customer base to fuel long-term, sustainable growth.

Companies like Vigilant face tough choices when deciding the best path forward. Venture capital firms offer one avenue for funds, but in the process add demands that can negatively impact a company’s culture or product vision. “We’ve always been averse to bringing in outside capital,” said Vigilant’s Chief Operating Officer Dustin Heath. “I guess there’s a fear that someone would come in and change the whole culture and change the whole environment and everything would just be about the bottom dollar.”

Vigilant discovered a path forward that has allowed them to continue to provide generous employee benefits and focus on solving difficult problems that their engineers enjoy working on. “We reinvest everything back into the company,” said Heath. “We want to do interesting technical work, bring good, high-paying jobs into Mount Airy, and we want to generate a culture where people love their work.”

Dustin Heath’s company has taken a path many companies overlook – pursuing federal Small Business Innovation Research (SBIR) grants, amplified by matching dollars from the One North Carolina Small Business Fund.

Heath and his business partner Dr. Mike Shields, knew the power of the SBIR program from their previous experience working for the United States military, in particular the Department of Defense’s advanced research agency, DARPA. “I was just on a call with a Lockheed small business director,” said Heath. “They love working with SBIR companies, because they are solution-focused companies. SBIR companies solve problems no one else knows how to solve.”

Vigilant certainly is tackling some of the toughest challenges currently facing the nation. The company’s work involves analyzing and hardening computer systems against cyber-attack. “One significant threat our nation faces is an EMP attack,” said Heath, referring to an electromagnetic pulse attack that could

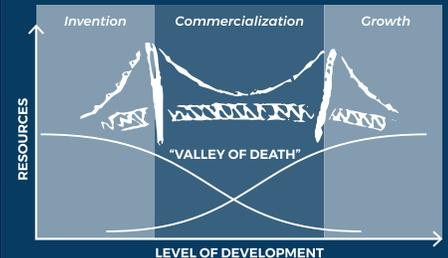
disrupt power grids and computer systems for weeks or months. One of Vigilant’s products maps complex computer systems that in turn allow system engineers to model and train for the impacts such an attack would bring. Creating this toolkit was the focus of one of Vigilant’s SBIR grants and it’s a perfect example of how North Carolina’s SBIR matching grant program accelerates a company’s progress through the Valley of Death.

“The OneNC grant was really pivotal,” said Heath. “It allowed us to ramp up the time we could put a junior engineer on the development of that program. With a Phase 1 (SBIR), you’re so limited. The OneNC grant led us to win a Phase 2 contract for \$750,000. Our demo was perfect. The grant managers were astonished we could accomplish so much in our Phase 1, given the budget and the amount of time we had. A lot of it was due to that match, because we could throw additional resources at it.” The Phase 2 contract enabled Vigilant Cyber Systems to bring 6 full-time software engineer positions to Surry County, as well as 3 part-time technician positions, and continued coverage for management personnel.

ABOUT THIS SERIES

Entrepreneurs and business owners face many challenges during the life of their companies, but none strike more fear and difficulty than the ‘Valley of Death.’

A familiar phrase to venture capitalists and business executives, the Valley of Death is the period of time a company must navigate between the discovery of a business-worthy idea or technology and the point when the company generates enough paying customers and revenue for long-term survival, job creation, and profits. Finding funding sources to bridge this gap is an ongoing struggle.



The One North Carolina Small Business Program helps promising, technology-oriented companies in the state survive and thrive. By providing matching dollars to companies that have already won highly-competitive federal technology grants, the OneNC Small Business Program is an important solution for North Carolina companies facing one of the business world’s toughest challenges.

BRIDGING THE VALLEY OF DEATH: A One North Carolina Small Business Program SUCCESS STORY



one north carolina
Small Business Program

ABOUT THE PROGRAM

- Established in 2005 (§ 143B-437.80-81), the Program awards matching funds to small businesses that receive federal Phase I Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) Phase I grants.
- SBIR and STTR grants are the single largest source of early-stage technology development and commercialization funding for small businesses (more than \$2 billion annually) - larger than all private sources combined.
- Yet the federal grants are often not large enough to allow the small businesses to complete their work, and federal restrictions on the uses of grant funds often limit the businesses.
- The North Carolina Program supplements and leverages the federal funds, helping hometown businesses commercialize innovative technologies & create jobs.
- Since Program Inception:
 - 398 grants awarded
 - Over \$24.7 million awarded
 - 255 different companies in 25 counties and 41 cities across the state have received funding
 - More than 900 jobs created or retained
 - More than \$500 million in external capital investment
 - More than 100 patents and copyrights already received, and another 250 applied for and under review
 - More than \$125 million in total sales resulting directly from the technology developed with Program funding
 - More than \$1.5 billion in total sales resulting indirectly from licenses of the technology developed with Program funding
 - More than 95 percent of the grantee businesses agree that the Program encourages the establishment and growth of high-quality, advanced technology firms in North Carolina
 - For more information, visit: nccommerce.com/sti/grant-programs



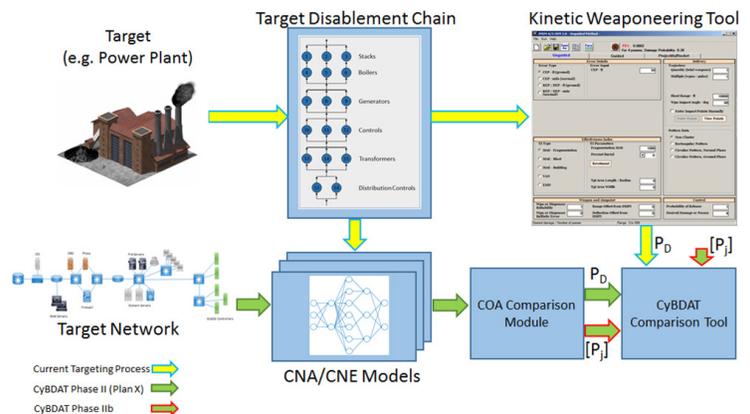
Vigilant Cyber Systems, Inc.

ABOUT THE COMPANY

- A Service-Disabled, Veteran Owned Small Business that provides support in the cyber, information assurance, and signal processing fields
- Year Founded: 2010
- Office Location: Mount Airy, N.C.
- Current Number of Employees: 25
- Website: vigilantsys.com
- Federal SBIR/STTR Funder: U.S. Department of Defense, Department of the Air Force
- One NC Small Business Grant Recipient in 2015 and 2016



VCS Engineers Demonstrate Cyber Physical Systems Testbed



Concept of Operations for Cyber Battle Damage Assessment Tool (CyBDAT)



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