



## MEET THE TEAM

**JOHN HARBAUGH**

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APRIL 2017

At root9B, the main differentiator is the talent that the company is able to attract. John Harbaugh, Chief Operating Officer, sat down to answer a few questions and give some personal insight for this month's "Meet the Team."

*As root9B's Chief Operating Officer, John focuses on the execution of business. His goal? To make sure root9B is operating safely and smartly, while providing our clients with excellent products and services. Mr. Harbaugh partners with the entire root9B leadership team, including CTO Mike Morris to ensure the company is technically sound and looking to the future. He supports the CEO's engagement with investors concerning revenue, budget, and product development pipelines. John has a wide variety of duties at root9B focused on current and future business execution, commercial and government contracting, service delivery, marketing, brand analysis, thought leadership, interviews, etc.*

John's journey towards a career in technology started at a very young age. He began writing programs on a Commodore 64 at the age of 14. He joined the military as a Electronics Technician in the Navy at 17. After 2 years in the Navy Reserve, John made an interservice transfer to the Air Force as an intelligence professional focused on telecommunications, networking, and cryptology. In the Air Force, he became known as an airman able to leverage computers to "do things they were not intended to do." This natural skill with computers was quickly noticed by senior leadership, and he was placed in a position where he could use those skills to develop and grow the USAF cyber program. In 2002, John was selected for the NSA's 3-year Systems and Networks Interdisciplinary Program (SNIP), a highly competitive software development and reverse engineering internship. Following graduation, he created the Air Force's premier cyber operations squadron as the inaugural Superintendent, with locations in Maryland, Georgia, Texas, and Hawaii. John was also recognized as the Air Force Association's Jimmy Doolittle Fellow for cyber operations and is the United States Air Force's only Master Certified Cyber Operator. Following his retirement from the USAF in 2009, John transitioned to the NSA, focusing on cyber operations, capabilities development, and threat intelligence.

Once John left the military he wanted to take on a leadership role within the NSA where he was surrounded by like-minded people and had great mentors. While with the NSA, John led several global organizations with missions focused on cyber operations, network defense, and threat intelligence. These experiences exposed him to the cybersecurity challenges being faced in the commercial sector through a unique lens from his position within the government —leading to his employment at root9B.

"root9B is an interesting company with a fantastic team," is the reaction John commonly receives when he tells others where he works. He often faces the question of how root9B continues to attract and retain such a high level of talent. His peers are also very interested in the difference between root9B and other cybersecurity companies. Mr. Harbaugh recognizes that root9B is different and that difference is root9B's approach. "We are not selling another passive solution or automated black box technology," John states. "root9B is trying to change how things in cyber are done." Bringing products and services together with the talent at root9B, proves to be a major selling point and differentiator among industry competitors. The "Think Like the Adversary" mentality and Active Adversary Pursuit approach is unique and quickly noticed.

John's favorite aspect of root9B is providing an incredible, significant end result to a client while delivering personable customer service and care to each client. His most memorable moments include opening the Adversary Pursuit Center (APC) and becoming the #1 cybersecurity company on the CYBERVENTURES 500.

John sees that the commercial sector is becoming more aware of the threat of cyber attacks and root9B is driving a shift to realize technology can not solve this problem without a human defender. There is a rising voice in the commercial space demanding leadership and change in the cybersecurity space. One of the significant areas of change in cyber space today is Threat Intelligence which should not be viewed as just "data." In root9B, we talk about Threat Intelligence as "knowledge" relevant to our clients' business contexts to drive informed decisions and have the largest impact on the adversary's operations. HUNT at root9B is very different from others in the industry, combining human defenders with technology to actively pursue adversaries in proprietary networks. A human defender, actively maneuvering in friendly network space is a new approach that other cyber companies do not employ. Unfortunately, the industry today is still primarily focused on automation while the adversary continues to adapt to these technologies. Threat Intelligence (knowledge) and HUNT are among the most interesting trends John sees in the cyber industry today. People want to get in front of the adversary, and root9B's manned approach, combined with a HUNT platform, is proving to be very successful.

As the commercial sector continues to recognize cyber attacks as an imminent threat, Mr. Harbaugh is consistently questioned about the possibility of a corporation achieving 100% cyber security. "Given the over reliance on automation, machine learning, and passive technologies to solve the challenges of facing a human adversary, there is no point where '100% cybersecurity' is achieved," says Harbaugh. He further explains this axiom as, "History has proven motivated and determined humans will take advantage of vulnerabilities, weaknesses, and features in machines and systems to achieve their goals and objectives. Bottom line, the current defense in depth approach continues to rely on automated solutions with hopes of out-thinking a human adversary: this is a failed strategy if the expectation is '100% cybersecurity.' The only effective counter to the human adversary is a human defender trained and equipped to serve at the core of a new cyber defense strategy which actively leverages these advanced automated technologies to pursue, counter, and defeat the adversary residing undetected inside an enterprise."

Mr. Harbaugh is motivated by being a part of a team like root9B, focused on making a difference and driving change in a larger community. His advice to anyone seeking an opportunity in cybersecurity? Be aware of the challenges facing the larger commercial sector, do not fall into the trap of negativity, do not revel in the misfortune of others, do not assume people are stupid if they do not understand the problem, and learn how to translate challenges to an audience outside of our technical community. The motto he lives by is: "Always have a positive attitude, assume honorable intent, and always take the high road."

