



Indiana Office of Technology

Powering a State that Works

Title: SEAL – Continuing to hire the next IT Professionals

Category: Enterprise IT Management Initiatives

State: Indiana

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Project End Date: Ongoing

Executive Summary

In Fall of 2019, the Indiana Office of Technology (IOT) started the process of removing degree requirements from most job descriptions and built a non-traditional pathway program to leverage the new hiring approach. Amidst COVID, and the need to gain more qualified candidates, Indiana became one of the first states (if not the first <https://statescoop.com/indiana-state-earn-learn-workforce-office-technology-seal-program/>) - and one of the first local IT employers in the metro Indianapolis region to employ a skills-first approach for technical roles.

IOT partnered with the Indiana Department of Workforce Development to leverage an existing, trade-focused apprenticeship program (**State Earn and Learn, or SEAL**) into a pilot for using work-based learning with on-the-job paid training to support a public agency's mission. The goal: bring people interested in a career change to IT into roles that support state government, train them and prepare them to enter the workforce as skilled technicians.

Since the first two associates graduated from the program into IOT full-time positions in 2021, there have been 21 more graduates from the SEAL IT Program, with another 22 currently in the development stage, contributing to 16 separate teams in IOT. In addition, IOT has expanded SEAL support to roles with four other executive branch agencies.

Project Narrative

Idea

Even before Covid-19, IOT was seeking to increase the pool of qualified candidates, but when the pandemic struck, that need became more urgent. According to research produced by Skillful Indiana in March 2020, 74.7% of potential candidates in the Indiana labor force chose not to apply for positions because of a degree requirement in job postings. IOT took this information as a call to action, moving to remove degree requirements from most job descriptions while pioneering a unique adult reskilling program targeted at bringing enthusiastic potential public servants into the state's IT workforce.

Between Fall 2019 and early 2020, IOT partnered with the Indiana Department of Workforce Development (DWD) to leverage DWD's existing, trade-focused work-based learning program (State Earn and Learn, or SEAL) into an innovative pilot for fusing on-the-job experience with training toward industry-valued certifications in information technology/security. DWD's SEAL brand was known well in the trade communities of the private sector, but IOT was the first Indiana state agency to use this approach for developing talent in the public sector.

The concept was ambitious: Find adults who want to change their professional lives for the better – citizens who were working in jobs that might pay the bills but offered little opportunity for growth, development, learning, and advancement; citizens who had an interest in the potential of IT, but who had no opportunity to learn the tradecraft during their off-work nights and weekends; citizens who wanted to join an organization serving the public good, and in a workplace that offers personal respect and work-life balance. Take these individuals, provide them with a meaningful chance to join the public workforce while learning IT, treat them with dignity – and then watch their skills and talent grow in an IT environment critically important for state-citizen operations.

IOT faced the challenge of finding individuals with the motivation to learn a complex tradecraft while working in the public sector, but with no prerequisites – its associates would not need to have earned a degree in Computer Science, would not need to enter with prior classes or certifications in IT, and would not need to have previous experience in government. These outstanding citizens would enter IOT from a highly diverse range of occupations - food service, truck driving, auto repair, collections, factory work, retail/grocery sales – and would be molded into IT and cybersecurity professionals.

Also, unlike other apprenticeship approaches, the SEAL IT program prides itself on flexibility for individuals with outside-of-work obligations to family; each associate's work week includes time designated specifically for certification study and exam preparedness. Accordingly, IOT's concept allowed the agency to provide opportunities to citizens eager to learn IT while also giving them a more accommodating and healthy workplace experience. It is sometimes referred to as the single-parent test.

In 2020, as the pandemic took its toll on the workforce, government and technology companies still needed to support its customers. IOT faced a staffing crunch more than ever, as private sector companies offered significant pay boosts for experienced workers. Like other state agencies in Indiana and nationwide, IOT also faced growing numbers of individuals eligible for retirement – roughly equivalent to the unemployment rate.

IOT's first two SEALs reported for work on March 16, 2020 – the same day that Governor Eric Holcomb ordered state employees into remote work. Despite the challenges presented by onsite work at that time, those same associates stepped up to take positions in IOT's break-fix hardware shop, learning their new tradecraft as demand for new and repaired PCs flooded the agency. The concept demonstrated immediate value to IOT; with associates' help, the PC Deployment team was able to rise to the challenge of supporting the executive branch.

Following its successful engagement with PC Deployment, the SEAL IT program continued to grow dramatically as the agency's chief executives witnessed its positive impact on business and the potential for talent development. In quick succession, IOT added SEAL associates in various segments of Security Operations and Enterprise Resiliency, its Customer Service Help Desk, its new Public Cloud Operations team, and several of its IT Operations teams. From its modest pilot of two associates, IOT's SEAL IT hired another forty-nine women and men into its ranks between July 2021 and May 2023, and its capacity to develop enthusiastic public servants continues to grow.

In their own words:

- “The program has transformed my life and accelerated a career change that I find invigorating. It has also given me the opportunity to serve my state in ways I never imagined in my previous life. This is the kind of opportunity that only comes around once in a lifetime if you're lucky.” - Kevin Barthauer, 2021 graduate, Security Vulnerability Management
- “It might be cliché, but the SEAL Program really changed my life. I hope more people get the opportunity that I got, because everyone associated with it is amazing. I am grateful every day that I work with the people that I do.” - Jen Zwarycz, 2021 graduate, Security Operations Center
- “I have been working since I was 15 years old, nearly half of my life spent working in various jobs in various industries, under a multitude of different bosses and managements. In all that time, I have never had a team that has made me feel more at home or valued than the SEAL team has.” - Brian Sutterfield, 2021 graduate, Security/Penetration Tester

Implementation

The SEAL program uses a work-based learning approach to give individuals entry-level experience in different IT business areas while providing paid study opportunities to achieve industry-valued certifications.

IOT partners with a local IT contractor to identify essential skills and attributes that match entry-level job opportunities in the agency. The vendor then manages the talent-pipeline process to vet potential candidates for IOT to interview for these opportunities. IOT's Strategic Workforce Planning (SWP) division plays a direct role in the interview and selection process while coaching hiring managers on expectations associated with using developmental resources.

From the first day of the program, the associate gains first-hand, on-the-job exposure and experience with one or more IOT teams/business units – reskilling immediately into the tradecraft of information technology/security.

In March 2020, IOT successfully onboarded two SEAL IT associates in a temp-to-hire contract capacity. The program graduated both individuals into full-time IOT staff positions in early 2021.

Building on this experience, IOT onboarded its next two associates in July 2021 and continued growing. As of April 2023, there have been 51 total associates in the program, supporting 16 IOT departments and four other executive branch agencies – 22 graduates, 24 still in the program and five that departed.

Timeline of an IT SEAL

Phase One (first 0-3 months)

Employees receive:

- A solid technical foundation to deliver value within an IOT operational team, documented through achievement of CompTIA A+ or other related IT certificates.
- Mentorship and coaching on service successfully in an office environment.
- The fundamental understanding of how to navigate State agencies, policies, procedures and IT Service Management.
- Upon completion of these milestones, associates are eligible for an hourly wage increase.

Phase Two (9-12 months)

Employees receive;

- An experience carefully balanced between the EARN (hands-on experience within a functional team) and the LEARN (continued study toward meaningful certifications).
- Deeper understanding of agency and business unit goals and objectives.
- The skills needed to provide assistance for administration or development activities.
- Development of basic abilities to uncover business objectives and expected outcomes for support activities.

During phase two, employees earn certifications that will support the mission of IT operational units while strengthening the employees' skill development. In this phase, IOT tailors the curriculum to match both needs, including - but not limited to - certification in Network+, Security +, and Microsoft

solutions delivery. Upon completing all milestones, associates graduate and are ready for full-time roles in the IT community.

Impact



Before



After

As of March 2023, IOT has hired 51 individuals into the program, and the agency has established an overall 88% retention rate.

SEAL has hired individuals with occupations such as warehouse workers, truck drivers, line cooks, grocery employees, teachers and veterans – now into IT business areas of high need, like cybersecurity and cloud operations.

During their experience in the SEAL IT program, associates earn industry-valued certifications while training hands-on and alongside IOT professionals throughout a standard workweek.

Associates typically spend more time in the program's LEARN (certification and professional-development study) phase during their first three months. Over the next nine months, associates gradually assimilate into the EARN (work-based learning and hands-on tradecraft) phase, gaining valuable experience that mirrors an entry-grade staff employee. As they take on responsibilities reflecting entry-level experience at IOT, associates receive paid-study opportunities built upon a successful preparation curriculum model tailored to each certification.

Depending on their assigned teams, SEAL IT associates have earned CompTIA's A+, Network+, Security+, and Project+ certifications, as well as the Microsoft Azure Fundamentals certification, Amazon Web Services Cloud Practitioner certification, and the Entry Certification in Business Analysis. These certifications have set SEALs up to support a variety of departments in areas of critical mission need.

IOT uses SEAL IT to support: Security Operations, including penetration testing, vulnerability and threat management, enterprise resiliency, security as a service, security operations center; Cloud Operations; Customer Service; Unified Communications (Telecommunications); Operational Security & Solution Delivery; application development (including low code/no code) Project Success Center (Project Management); Identity & Access Management; and Chief Administrative Officer services, including business analytics, technical writing, and strategic workforce support.

Since its inception, StateScoop, TechPoint - an Indiana non-profit created to promote the technology industry - and Work + Learn Indiana have recognized and honored the SEAL IT program for what the Alliance for Digital Innovation calls one of the "most aggressive reskilling programs (they've) seen in the public sector." The IOT SEAL IT program and skills-based hiring approach has been featured on the NASCIO Voices podcast, TechTables podcast, and forthcoming publications in the GovTech Magazine and Indianapolis Business Journal, as well as in webinars sponsored by Kenzie Academy and Coursera/GovTech. SEAL IT is a two-time winner of the StateScoop 50 State IT Innovation Award (2022, 2023); a finalist for the 2022 NASCIO State IT Recognition; a finalist for the 2023 Indiana Chamber of Commerce/Institute for Workforce Excellence Employer of the Year award; and a two-time finalist for a TechPoint Mira Award, recognizing IT initiatives in Indiana (2022, 2023).

The SEAL Program has allowed IOT to find and train, precisely as needed, the next generation of its workforce. Over twenty graduates are now state staff employees or long-term agency contractors, and another twenty-two individuals are actively (and successfully) moving through the program.

Three years after its creation, having been a clear success, the SEAL IT program continues to provide personnel support and talent development in mission-critical operational and cybersecurity business areas across the agency.

Darrel Zeck, Director of DWD's Office of Work-Based Learning and Apprenticeships – which has responsibility for SEAL programs across the state – stated: “Here in Indiana, much of our success in increasing the awareness and use of this type of education and training can be attributed to certified SEAL opportunities. They are designed to deliver earn-and-learn experiences along with the education, skills, and certifications that employers value, often with a pathway to degree completion. One of the best examples is the certified SEAL developed with, and being used by, IOT. What began in 2019 as a pilot program has become a very successful model not just for IOT, but for other state agencies and the technology field as a whole.... IOT has brought together, in strategic coordination, the alignment of industry needs to education and training opportunities for their participants.... Because of [IOT's] example, we will see even more support of Hoosiers and their professional aspirations in this high-demand career field.”