



Empowering the Future

Tennessee Explores IT Workforce Professional Development Initiatives

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EXECUTIVE SUMMARY

When it comes to recruiting, retaining, and training the information technology (IT) workforce of today, governments and public service organizations face an increasing number of challenges. One of the biggest issues is competition from the private sector which can offer higher salaries, greater flexibility, and better benefits packages. Additionally, many governments are constrained by hiring rules and regulations that make it difficult to quickly fill open positions. In the IT industry, it is estimated that 65% of employees are disengaged (InfoTech, 2017). This is even greater in public service organizations with lower pay scales, making engagement and satisfaction harder to achieve. A lack of engagement leads to low retention rates and lower productivity. Finally, training and development programs may be limited by legislative and budgetary constraints that make it problematic to keep up with rapidly evolving technology trends.

The State of Tennessee is a government organization located in one of the top information technology (IT) recruiting markets in the nation, Nashville, Tennessee. All of the aforementioned workforce challenges are unfortunately “near and dear” to our hearts. Nonetheless, the State’s centralized IT organization, Strategic Technology Solutions (STS), tackles these challenges head on. Since Tennessee’s enterprise IT consolidation initiative in 2018, our organization has worked tirelessly to improve recruiting, retaining, and training in order to ensure our state employs the most highly skilled and motivated technology professionals.

Because private sector competitors offer much higher salaries and increasingly better benefits than we as a government organization can, and because at least 22% of our IT workforce remains eligible for retirement, our Chief Information Officer (CIO) charged the STS Employee Engagement Team with creating a professional development program that fosters a more skilled, committed, and motivated workforce. As a result of this charge, the STS Employee Engagement team has created a professional development program that focuses on developing and retaining current employees, and “growing them from within” rather than outsourcing in order to fill in workforce or expertise gaps. The team knows that employee experience, professional development, and technical training are all interconnected in terms of creating a high-performing workforce. By providing opportunities for professional growth and technical skill development, STS employees are now more likely to feel engaged and invested in their work. This, in turn, has led to better job satisfaction, increased productivity, and reduced turnover rates. New innovative and flexible technical training programs also ensure that our employees have the skills and knowledge necessary to keep up with technological advancements in their field, which is important for staying competitive and providing high-quality services to our customers.

The STS Professional Development Program is comprised of eight key elements:


1. Career development
2. Mentoring
3. Professional development
4. Guiding principles workshops
5. Internships
6. Employee spotlights
7. IT certification recognition
8. Innovative technical training

The underlying goal of each element is to foster a greater culture of engagement, where STS employees are encouraged to proactively participate in their own professional growth. The program has also empowered STS supervisors to regularly communicate with their employees about their goals and aspirations, and offer support in achieving them. By creating this culture of engagement through the STS Professional Development program, STS employees feel more motivated and invested in their work, leading to better performance and overall success for our organization. Each of the eight key elements in the program is described in more detail in the sections that follow.

IMPLEMENTATION & IMPACT

STS Career Development Program

The STS Career Development program was created as a formalized process that enables employees to document their development planning priorities, action plans, and progress in developing the priority competencies STS leadership has identified as essential to the organization. This program helps our employees explore career path options, determine the direction they'd like to go in, and identify development opportunities. Since its implementation in 2021, the program has been very successful and has continued to gain momentum over the past couple of years. The STS Employee Engagement team is now in the third year of leading the program.

A graphic featuring a quote in blue text on a white background, set against a blue and white abstract geometric pattern. The quote is: "My contact had helpful suggestions/ideas without adding pressure to my workload. It was nice to check in with someone about my goals who could present ideas for growth."

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– 2022 STS Career Development Program Participant

Each year a communication is sent out to all STS employees inviting them to participate in the voluntary program. The program includes a career development form that participating employees use to document their long term and short-term goals. These forms are reviewed and discussed with the STS Employee Engagement team and the employee's manager. Training is also provided to managers and employees participating in the program, and quarterly meetings are held with employees and managers to measure progress. Since 2022 to present, there have been 127 participants in this program, and 21 of those employees have been promoted. There are currently 65 employees

participating in this year's program. This is a result of our continued focus on training and development of our employees within the organization. At the end of each year, the Employee Engagement Team also sends out surveys to participating employees and managers to gather feedback and opportunities for improvement. The feedback received each year has been very positive.

STS Mentoring Program

Mentoring is an extremely effective tool that helps employees develop critical professional skills, particularly soft skills, which are difficult to train. The STS Employee Engagement Team developed and implemented a pilot Mentoring Program in 2022 with 14 initial participants. At the end of the pilot program, the Employee Engagement Team sent out surveys to mentors and mentees to gather feedback and opportunities for improvement. The feedback received was very positive and the program was renewed for the second year in 2023. There are currently 18 mentors and mentees participating in the program. Mentees are paired with mentors who are at higher roles and outside of their current department of the organization. This cross collaboration allows mentors and mentees to work together and learn from one another throughout the process, while focusing on specific competencies throughout the program. Implementing a formal mentoring program has helped mentees easily connect with suitable mentors and has added a powerful interactive and personable component to the overall STS Professional Development Program.

A graphic featuring a quote in blue text on a white background, set against a blue and white abstract geometric pattern. The quote is: "I learned so much about how my organization functions on multiple levels. I went into the mentoring experience not being sure if I wanted to promote into a leadership position or if I was just looking for an opportunity to be a leader from my current position. Through our conversations I was really able to see ways for me to pursue either...So much of my job involves working across teams and across contracts so, I was definitely provided with a lot of tools for maximizing my efforts and getting the outcomes needed by my team and the program we support."

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– 2022 STS Mentee Participant

STS Employee Development Program

During a 2022 Department-wide Employee Engagement survey, STS received feedback from our employees that subsequently resulted in the development and implementation of the STS Employee Development Program. This robust program includes a four-hour class facilitated by Learning Tree through STS Employee Engagement's IT Academy Program. To ensure consistency across all of STS, the class is required for all supervisors to attend so they can have successful conversations with their employees regarding professional development. For FY23, a required work outcome for all STS Supervisors was included in the SMART performance planning process so that each supervisor meets with at least 20% of their direct reports to have professional development discussions. Each supervisor is required to define success measures during these sessions (tailored to each employee) and to report against those measures to the STS Employee Engagement Team. This program provides our leaders with a uniform process, as well as the resources and tools to be successful in handling these discussions with their team and providing consistency throughout the organization.

STS Guiding Principles

<p>1. Value and Respect Each Other</p> <p>We believe in the value of our people. Therefore, diversity, equity, and inclusion provide the opportunity for everyone to be seen and heard without bias. We will take time to celebrate success, communicate often, and strive to foster an empowering, collaborative workplace that encourages trust and respect. We believe in the STS team. We strive to include all team members and actively seek ideas from all members of our organization. We will acknowledge improvement and celebrate success. We will work as a team while respecting individual boundaries.</p>	<p>2. Put the Customer First</p> <p>We believe in partnering with our customers to meet their business needs. Therefore, we will listen, ask clarifying questions, have respectful dialogue, be inclusive, and partner to provide the best solutions for the business of the State of Tennessee.</p>	<p>3. Evaluate, Prioritize, and Plan</p> <p>Improved Prioritization and Planning - only promise what you can really deliver. We believe in our resources (human, monetary, time, capital). Therefore, we will strive to apply them in a manner that best meets the needs of the business. We will plan and monitor expenditures through the year and provide transparency to our customers.</p>	<p>4. Hold Ourselves Accountable</p> <p>We do what we say we're going to do.</p>
<h1>STS Guiding Principles</h1>			
<p>5. Demonstrate Integrity</p> <p>We let ethics and honesty govern our conduct in dealings with customers, team members, vendors, etc.</p> <p><i>Figure 1</i></p>	<p>6. Encourage Communication</p> <p>We believe communication is key to success.</p>	<p>7. Provide Leadership</p> <p>We recognize that as leaders, our job is to be a vehicle for maximizing employee effectiveness. We will promote diversity, equity, and inclusion practices.</p>	<p>6. Listen to Understand</p> <p>We strive to understand our customer's need to ensure that we provide solutions that work. We believe diverse thoughts and open dialogue along with collaboration result in better solutions to problems.</p>

The STS Guiding Principles have become ingrained within STS culture over past several years, encouraging each STS employee to uphold the eight Guiding Principles in their daily work and lives. These STS Guiding Principles also guide the organization throughout its life in all circumstances, irrespective of changes in its goals, strategies, type of work or the top management. Most recently, with recommendations from the STS Executive Team and the

STS Diversity, Equity and Inclusion Council, the Guiding Principles were revised so that our "We Believe Statements" and Action Steps better represent our culture and action steps that we uphold in the organization (see fig 1).

Each year, STS hosts trainings and/or workshops that are based on these eight Guiding Principles. For 2023, the STS Employee Engagement team leveraged gamification to make this year's STS Guiding Principles training material more engaging and interactive. The team developed a workshop that all STS employees are required to attend as documented in their individual performance plans. The fun and interactive workshop is titled "STS Family Feud". This game is made up of the eight STS Guiding Principles in the form of the TV Show "Family Feud" (see fig 2 for example). These workshops have been very successful thus far and helped us to engage



Figure 2

employees throughout the workshop with the game.

In addition to attending required trainings, employees are encouraged throughout the year to use an electronic form for nominating anyone in the organization when they observe a peer upholding an STS Guiding Principle. These nominations are posted online for recognition as well on the STS Employee Engagement intranet site. Quarterly STS Town Halls are also held with all 1300+ employees, and a random winner is chosen from both the nominator and nominee groups for that quarter as an incentive to the program. Recognitions received in this program can also be noted in employee or supervisor comments as part of their individual performance plans during performance feedback exchanges. Opportunities for recognition and rewards can help motivate and incentivize employees to continue their growth and development.

STS Internship Program

State of Tennessee internships provide students with the opportunity to experience the value of employment within state government, while also gaining on-the-job training that integrates education, professional development, and public service. Leveraging American Rescue Plan Act (ARPA) funding received, the STS Employee Engagement team has recently developed an Internship Program and we are working with high schools, universities, and colleges to hire interns throughout the year. STS is partnering with various organizations to hire interns and provide an opportunity to develop them to possibly become future faces of STS and help them achieve the following objectives:

- Gain practical learning experiences in a professional environment
- Provide hands-on experience for students to increase their knowledge, skills, and abilities in a professional career field
- Provide students with a competitive edge and a possibility to gain employment after graduation
- Provide an opportunity to STS to attract top talent and provide them with networking opportunities

STS has employed approximately two-thirds of the interns that have participated in the STS Internship Program. This program adds value to the State of Tennessee through promoting the work of state government and developing potential future employees, while providing STS with an opportunity to develop future talent and give back to the community.

STS Employee Spotlight Program

The STS Employee Engagement team developed the Employee Spotlight Program in 2021 as a voluntary but fun way to allow employees to get to know their co-workers from all areas within the organization. This program provides conversation starters between employees, and with most of our workforce working a remote or hybrid schedule, these initial conversations can result in closer interpersonal connections. The employee spotlights are also an excellent way of sharing employee stories that build connections among employees. When different groups connect on a deeper level, it leads to higher engagement and teamwork,



Figure 3

and the focus is to help employees get to know one another. Employees must answer 3 questions from a list that is provided and submit their answers with a professional picture. Some of the information provided may feature an employee's history with the

state, achievements, successes, challenges, and more. The spotlight may provide information about one's personal life, too. All the spotlights are published on the Employee Engagement team's intranet site for employees to access (see fig 3 for posted examples).

IT Certifications/Salary Increases

In approving professional certification programs, the Tennessee Department of Human Resources (DOHR) seeks to recognize employees who enhances competencies and services to the State by acquiring knowledge and skills relevant to the major duties and responsibilities of the job and who attains certification from a nationally recognized professional organization. In October 2022, STS partnered with DOHR and obtained approval for several certifications to be added to the existing list of approved certifications. Figure 4 lists the currently approved IT certifications (as of November 2022).

Employees must meet the requirements listed in DOHR's *Policy 12-031: Nationally Recognized Professional Certifications* to be eligible for a salary increase. If an employee obtains a certification on the approved list, they can submit justification how the certification will enhance their performance in their current role, and it will be processed through DOHR for a five percent increase. The intent of this program is to encourage employees to attain professional competencies and to provide an incentive for these employees to remain in STS service. This group of nationally recognized IT professional certifications enables STS to better attract, develop and retain our employees and enhance job satisfaction amongst our workforce.

Approved IT Certifications
<i>AWS Certified DevOps Engineer - Professional</i>
<i>AWS Certified Solutions Architect - Professional</i>
<i>Azure DevOps Engineer Expert</i>
<i>Azure Solutions Architect - Expert</i>
<i>Certified Business Intelligence Professional</i>
<i>Cisco Certified Design Professional</i>
<i>Cisco Certified Network Professional</i>
<i>CompTIA Advanced Security Practitioner Certification</i>
<i>CompTIA Project+</i>
<i>CompTIA Security + Certification</i>
<i>F5 Certified Solution Expert</i>
<i>VMWARE Certified Design Expert</i>
<i>Certified Business Analysis Professional or PMI Business Analyst</i>
<i>Certified Information Systems Security Professional or CISSP - ISSMP;</i>
<i>CISSP-ISSAP or CISSP-ISSEP (can get one but not multiple)</i>
<i>Project Management Professional or Portfolio Management Professional</i>
<i>Certified Change Management (CCMP)</i>
<i>Certified Information Privacy Manager (CIPM)</i>
<i>Certified Information Privacy Professional (CIPP)</i>
<i>Certified Information Security Manager (CISM)</i>
<i>GIAC Security Expert (GSE)</i>
<i>Systems Security Certified Practitioner (SSCP)</i>

Figure 4

Innovative IT Academy Training

The State of Tennessee's IT Academy is a cross-jurisdictional technical training program that was created in 2013 by STS as an organized effort to provide IT staff with the skills to support the use of modern computer technologies. The IT Academy team works with third-party vendors to develop and deliver 21st century curriculum for over 1,600 IT professionals statewide, across all branches of government. The program is funded by the State, and courses are free for any state employee with an IT classification. IT Academy's goals are to provide the State's employees with an increased level of technical subject matter expertise, as well as an overall performance improvement in creativity and technical problem solving among the IT population. IT Academy is recruiting win for STS, as it attracts and helps retain some of Tennessee's top talent.

The STS Employee Engagement team has played a crucial role in fostering a culture of continuous learning and development within STS through recent expansions and improvement of the existing IT Academy training program. When employees are engaged, they are more likely to take an active interest in their own development and seek out training opportunities. This leads to a more knowledgeable and skilled workforce, which helps STS stay competitive and adapt to changing market conditions.

With the majority of the State's workforce now working from home post-pandemic, the IT Academy team has made some major transformations over the past few years in order to provide innovative and flexible development opportunities that go beyond traditional classroom-style sessions.

One change they made was in their training delivery methods, offering more online courses and webinars that allowed IT employees can access at their own pace. The team has also increased the number of training providers, avenues, and styles. For example, historically IT Academy courses were three to five full-day courses that took place in-person. The team realized that supervisors were reluctant to send employees to trainings that spanned so much time, taking employees away from day-to-day duties for too long. A pivot was made to offer high-demand courses in shorter sprints that were more spread out, with half-day or

less durations, and via on-demand access. IT Academy now offers a wide variety of Microlearning resources which includes videos, webinars, podcasts, games, blogs, white papers, infographics, live events, and more (see Figure 5). Microlearnings are available anytime (self-paced and live offerings) on multiple platforms like handheld devices. Learners can access IT Academy Microlearning resources on their MY IT Academy Classroom Portal, IT Academy TeamTN Website, and in the State's ERP system, Edison.

IT Academy Watch Party
An IT Academy Watch Party is a live Microlearning event where IT professionals watch a technical training topic video together and discuss it together with an IT expert in the content | area afterward.
The viewing party is anywhere from 25-35 mins and the discussion/ Q&A is 20-15 mins.
Past Events:
Conducting Effective Virtual Meetings
Click [Here](#) to watch the recorded Session
From: Thursday, April 13th | 10 AM CST
Process Improvement Begins With Me!
Click [Here](#) to watch LinkedIn Learning "Practical Creativity for Everyone" by Dave Birss and click [Here](#) to watch the post-video discussion
From: Thurs, January 26th | 10 AM CST

LIVE Microlearning Events
Live Microlearning Events- provide targeted knowledge bursts in 45-minute sessions followed by a 15-minute Q&A with industry experts.
Upcoming Live Events:-
How to Close the Strategy-Execution Gap
Click [Here](#) for Details and Instructions
When: Thursday, May 25th | 11 AM CST
Duration: 1 hour (45-minutes with 15-minute Q&A)
Note: You will earn 1 CEU for attending these FREE Microlearning Events.

IT Academy Webinars
The IT Academy Webinars provide foundational knowledge and awareness of critical IT topics that impact all State of Tennessee IT employees.
Topics for these webinars include:
• Overview of the IT Academy Program
• Systems Development Life Cycle
• ITIL and IT Service Management
• Agile Concepts
• Business Intelligence: Executive Briefing for IT Leadership
• Developing a Business Continuity Overview (BCO): Executive Briefing for IT Leadership
• Cloud Computing: Executive Briefing for IT Leadership
• Systems Development Life Cycle

OnDemand Training
IT Academy OnDemand Webinars are recorded events that include targeted knowledge bursts in 45-minute sessions followed by a 15-minute Q&A with industry experts. Topics for these webinars include:
• Modern Solutions for Remote Work and Virtual Training
• Leading Virtual Teams
• Cross-Functional Teams: The Humans of Business Agility
• And more!
Note: You will earn 1 CEU for attending these FREE Microlearning Events.

Figure 5

IT Academy also had traditionally worked with just one training provider vendor, but has recently shifted to a multi-partner approach in order to increase variety, style, and technical expertise levels (ex: Learning Tree, PluralSight, LinkedIn Learning, AWS, CloudGuru, Microsoft ESI). As technology platforms and service offerings have progressed in the State of Tennessee, the team has adapted to the demand for new training offerings. A great example of this shift is when STS launched the CloudTN initiative in

2020, creating multiple tenant environments amongst three different Cloud providers. IT Academy then partnered with State of TN cloud experts, leading Cloud Technology providers, and skilled industry Cloud practitioners to develop a new Cloud Computing Curriculum Path.

Just like all other IT Academy curriculum paths, the Cloud Computing path was meticulously curated and updated to provide development and upskilling of the Knowledge, Skills and Abilities identified on the TN DOHR job classifications. State of TN SMEs across agencies and levels worked with IT Academy and their vendors to provide the best possible courses for applicable Cloud job classifications (see Figure 6 for current Cloud course offerings). The team created a one-stop training resource center to help learners quickly and easily find the right Cloud Computing Technology training information in order to best support their IT projects initiatives.

TN Department of Finance & Administration | STS IT Academy

All Things Cloud Computing TRAINING

available on TeamTN.gov

- › Cloud Computing Training Reference Guides
- › Instructor-Led Cloud Computing Training
- › On Demand Cloud Computing Training
- › Cloud Computing Micro-Learning Webinar

Here the team publishes Cloud Computing Training Reference Guides that they developed to help foster a conversation between IT managers and employees about essential Cloud computing training that is needed for current and future job functions. From instructor-led classes to e-Learning and microlearning, IT Academy's Cloud learning opportunities are available in multiple formats to best meet each learner's needs and learning styles.

Cloud Courses - January 2023- August 2023

1 to 16 of 16 records

Title
T866 Overview of Cloud Computing Basics
T882 Microsoft Azure Fundamentals Overview (AZ-900)
T746 Configuring Windows Server Hybrid Advanced Services (AZ-801)
1221 Migrating on AWS
T632 Designing Microsoft Azure Infrastructure Solutions (AZ-305)
T866 Overview of Cloud Computing Basics
T454 CompTIA Cloud+ Certification
1238 Building Data Lakes on AWS
1239 Building Batch Data Analytics Solutions on AWS
T653 Introduction to Docker
1240 Building Data Analytics Solutions Using Amazon Redshift
T866 Overview of Cloud Computing Basics
T896 Migrating on AWS
T940 Securing Web Applications, Services and Servers
1227 Developing on AWS
T861 Cloud Computing Technologies Introduction

Figure 7

The aforementioned improvements are only a few examples of the transformational changes the IT Academy team has made over the past few years. Additional achievements and expansions for IT Academy include the following:

- Hired an enterprise Training Consultant
- Created a Train-the-Trainer program for IT employees to be able to train non-IT employees within their respective agencies
- Updated curriculum paths for each IT job classification in the State
- Enlisted State curriculum SMEs to review demand/need and update training requirements
- Expanded training to include non-IT learners if their Departments want to fund attendance (ex: Data Visualization, Business Intelligence, Agile Methodology, Project Management, etc.)
- Lowered the minimum class size for attendance from 20 to 10-7
- Created collaboration spaces for learners to engage during and after training completion (post-course chat sessions)
- Formed IT Sandboxes & Play Yards for learners to develop in secure test environments

CONCLUSION

Almost all State organizations understand the value of investing in IT workforce development, however many are unable to do so effectively due to budget constraints and competing administration priorities. Strategic Technology Solutions was fortunate to receive the Lee Administration's backing through recurring state monies and nonrecurring federal funds in order to further expand our professional development efforts when we needed them most. Leveraging the State CIO's support and enthusiasm, the STS Employee Engagement Team has worked tirelessly over the past two years creating a successful professional development program that fosters a more skilled, committed, and motivated workforce.

This eight-component program includes career development, mentoring, professional development, guiding principles workshops, internships, employee spotlights, IT certification recognition, and innovative technical training. All of which has been a large win for us by fostering a greater culture of engagement where STS employees are encouraged to proactively participate in their own professional growth. By creating this culture of engagement through the STS Professional Development program, STS employees feel more motivated and invested in their work, leading to better performance and overall success for our organization. This ultimately has allowed STS to better recruit and retain the future of our IT workforce here in the great State of Tennessee.