



# OFFICE OF INFORMATION TECHNOLOGY

## TECHNIGHT

CATEGORY: STATE CIO OFFICE SPECIAL RECOGNITION

STATE: MAINE

CONTACT: KELLY RICKERT, DIRECTOR, WORKFORCE INNOVATIONS

DATES: MARCH 2013 TO PRESENT

## Executive Summary

The State of Maine, Office of Information Technology (OIT) is, as with many Technology agencies, companies and departments, faced with a very sobering phenomenon: The Silver Tsunami. Coupled with this ever growing concern is the reality that a large deficit in skilled IT workers looms over the horizon. In OIT alone, 24 percent of our workforce will be eligible to retire in the next two years. Additionally, per the U.S. Bureau of Labor Statistics, employment of software developers is projected to grow 17 percent from 2014 to 2024, while employment of network and computer systems administrators is expected to grow by 8 percent over the same period of time. And that is not all – according to the Department of Labor statistics, by 2020 there will be over 1 million unfilled technology jobs in the United States.

These numbers are what keeps Jim Smith, CIO of the Office of Information Technology up at night. These numbers are the driving force behind his implementation of our ongoing TechNight initiative back in 2013. TechNight was brought into fruition as one part in a growing and larger initiative within OIT. An initiative to educate students on exciting opportunities in the field of Information Technology in the State of Maine while keeping our young people engaged and interested in staying in Maine.

TechNight was selected as a partial solution to this problem as an effort to focus solely on educating high school students to the vast array of possibilities in the Information Technology field. The ultimate goal of this event is to engage and educate high school students in the field of IT. This event provides an excellent opportunity for high school students to not only see the strides we are making as a state government in the field of technology, but also a chance for students to interact, and have fun with hands-on activities similar to the work we do in IT on a daily basis. Some activities include project management, teambuilding, performing IT forensics, and programming.

Another benefactor of the TechNight is our own workforce and the opportunity to bring their invigorating pride-filled passion for technology to the event. Our technology professionals showcase their skills and talk to students about the real work they do. While a career in IT can be glamorous, our workforce makes no downplay about the serious security measures high school students need to be aware about to be tech-safe. Partnerships are created abundantly each year between our workforce IT professionals and other government agencies, colleges and universities, high school educators, vendors, parents and students. TechNight is a collaborative community event.

Beginning in 2013, Jim appointed a small group of committee members to focus on doing just that – bringing TechNight and excitement about technology careers to the State of Maine, OIT. The committee meets a couple of times a month October through March to plan the coming annual event. The cost of planning and executions is kept extremely low – under \$1,000 for the entire event – through many volunteer hours by committee members and a generous number of donations and contributions from our many outstanding vendors and supporters.

As one would assume, metrics and analysis on this event is highly important to our continued promotion of and involvement in this initiative. Our goal is to get high school students – students who may not know what career path they desire to pursue – interested in technology.

And not just any technology – an IT job in the State of Maine at the Office of Information Technology. We measure this data annually from responses and surveys from students and chaperones (teachers/parents) who attend and the data has been astounding. After all, there has never been a better time to explore the field of information technology.

## Concept

The planning for TechNight begins each November with a committee of approximately ten. The focus of the committee is to host a memorable event that encourages high school students to get engaged, and excited about career opportunities in the technology field. Each individual committee member plays a pivotal role in the success of the event – from our forensic gurus, programming specialists, vendor communicator, agency contacts and student outreach facilitator. This annual event ranges from programming to pizza to prizes and everything in between. We strive to stress the importance of teamwork, collaboration, and creative problem solving.

The event begins each year with our highly engaging and exciting TechFair. This hour long session is a critical aspect of the night’s agenda. During this time, students have the opportunity to network with state agencies, vendors, colleges, universities and peers also interested in technology. The displays put on by our fellow state agencies and vendors are nothing short of phenomenal. Each year typically boasts over 22 displays that range the gamut on the IT arena. On a typical year one may expect to see drones, 3-D printing, flight simulation (students get to sit down and “drive” an airplane), hands-on robotics, geospatial mapping programs, night vision and so much more. All of the local colleges and universities are also invited to attend the event to promote IT degree programs to the students.

There is no down time during our four-hour long event. In the blink of an eye the drones complete their final flight and the simulated airplane touches down. Then, the activities begin. Student activities can vary from year to year but, they always encompass key areas in IT. These areas include: IT Forensics like recovering deleted files off drives, computer programming where students are asked to build and then present simple computer programs and Teamwork Challenges where the team who displays the best use of collaboration and problem solving is announced as victorious and collects their prizes. These activities are in many cases the student’s favorite part of the night. It is the point where they get to meet and interact with students from a wide variety of schools while learning about many fascinating areas of technology.

As with any event of this nature, it is imperative that we obtain measureable metrics from the student and chaperone attendees in order to continue to provide an engaging and exciting event as well as to ensure that our goal is being met: that we are successfully introducing and engaging student to IT careers. Once the last piece of pizza is served and the last bag of chips has been crumpled (and shot into the trash basketball style) we encourage all students to fill out a completion survey (yes, with the enticement of a semi-fabulous prize drawing!) It is from this survey that we can say with utmost certainty. It works. Year after year, we have successfully demonstrated to students that a career in IT is more than just programmers and coders – it’s cyber security experts, business analysts, GIS coordinators, program managers, network engineers, and so much more.

## Significance

With the reality of the numbers in mind, Jim Smith knew that something had to be done to excite students to the field of technology. A great deal of focus and effort had previously and continuously been placed on college aged students but, are students ever really too young to start thinking about a possible future in information technology? Could we get high school students involved to? After all, they are the ones who are currently deciding what their future holds and the career avenue they will ultimately pursue. From this idea, TechNight at OIT was born.

The State of Maine High School TechNight is an important event to help students, their parents, and educators learn about IT careers in the state. Participation is limited to no more than 70 students to ensure that we fully maximize the experience of attendees. The event is promoted heavily throughout the schools toward students who aren't currently interested in an IT career or who many not know what they "want to be when they grow up." By targeting this demographic we hope to encourage those students who have never considered a career in technology to at the very least come and participate in the event while keeping an open mind to the exciting possibility of a future in technology.

With the number of baby boomers rapidly walking out the doors on their way to a healthy and happy retirement, the shortage of skilled IT students exiting colleges ready to fill their shoes each year, and the sobering number of young people leaving Maine in pursuit of bigger and better things something had to be done. TechNight is our something. Plain and simple, we need technology resources and technology is a great career – a career predicted to continue to grow at an alarming rate well into the foreseeable future.

At the State of Maine, Office of Information Technology, we perform the very work that millennials and these high school students will be looking for in careers. We perform meaningful and exiting work, and work that makes a real difference to Maine citizens. How many IT workers can say that today they created a new application form to allow the citizens of Maine to register for a license online? That is the work we do, every day. There is a future here for young people in Maine and it is our job to show them that through events like this that further educate our students in Maine that there is a future here.

## Impact

The results seen from our TechNight event has been astounding and they have only just begun to be realized. Our 2016 and 2017 events have seen a record number of interest and attendees. This past year, even requiring a larger venue to accommodate the growing demand. With 331 students who have attended the event to date from a total of twenty different schools (the furthest being 141 miles away!) around the state we are certainly getting the word out about IT degrees and fields.

Metrics are collected following each event to ensure that our efforts are doing what we have designed them to – get our high school students interested in technology, IT careers and staying in Maine. During our 2017 event *seventy-one* percent of students said that they were more interested in technology careers as a result of TechNight, *eighty-eight* percent of students learned

about college programs in the IT field and *ninety-six* percent of students would recommend TechNight to a friend.

Some responses we received when we asked the students what they learned at TechNight:

*“Many different colleges in Maine can help me get a degree in technology.”*

*“Technology is used for everything and that no matter your age or skill level you can still be a team.”*

*“I learned about the importance of IT jobs and education.”*

Additionally, when asked what their favorite part of TechNight was students responded:

*“Getting to see all the interesting and different things with computers.”*

*“What I learned because I will be able to bring the knowledge wherever I go.”*

*“Everything.”*

Furthermore, The Office of Information Technology hired one previous TechNight attendee who joined us at our first annual event. This particular individual started with OIT in an internship capacity for college credit and quickly excelled and succeeded at his work. A short three months later he was hired as a full time State of Maine employee. Since that time, he has been deployed on active duty during which time his job was held pending his return. Upon his return, the state worked closely with him and his supervisor to transition him back into a civilian work environment. The transition while rocky at times, was ultimately highly successful and he was soon promoted again within the department.

Also, since the inception of TechNight the Office of Information Technology has formed a vast array of professional relationships with the educators and schools that attend these events. These partnerships have been the bridge to a wide array of other opportunities for high school students that have been implemented – from job shadowing to career fairs aimed at high school students we are always happy to partner with the local schools on these initiatives and many are directly related to the relationships we have formed through this event.

As we begin to prepare for our sixth annual event in the coming months we keep all of this data in mind. How important this event is to our culture, to the initiative, to Maine students and our educational partners. When educators continue to stop you at events months later and tell you how thankful they were to have the opportunity to bring students, how excited the students were following the event and how they can't wait to bring another group the next year, you know that you have done “something” right. For us, the students, and the technology community at large, that “something” is TechNight! We still have a long road to achieve a full technical staff but, it is small strides such as TechNight that show we are moving in the right direction. High school students love technology. They were born with it. Have grown up using it since childhood. Once you open their minds to the possibility of using, creating and maintaining that very same technology as exciting and meaningful work in the State of Maine they take off running and never look back. Value-add: priceless. NASCIO worthy: oozes innovation States can replicate.