Information Technology Workforce Forecast 2015

Where Do We Go From Here? Building an IT Roadmap

59% of companies project hiring this year

84% of all forecasted openings are for professionals

376 forecasted openings from 42 organizations

24% of all planned openings are for programmers

84% of all forecasted openings are for professionals

Highest Demand by Experience

Programming

Business Intelligence Analyst

Quality Analyst

Desktop Support Analyst

Entry Level or Intern

> 3 years experience
There are 21,339 information technology (IT) professionals working in the 14 county Dayton region. Information systems and business technologies empower every industry today. Approximately two-thirds of these professionals work in non-IT industries such as healthcare, manufacturing, and construction.

IT professionals average an annual salary of $72,900 in 2014, which is 78% more than the average salary for other occupations at $41,040. Jobs in the information technology profession are supposed to grow 15% over the next ten years.

Because of this projected job growth and the fact that IT powers all industries, the pipeline of new professionals entering the workforce is critical to future company growth and success. In an effort to help draw students into the career field and ensure that high schools and colleges are preparing their students with the best curriculum, Technology First embarked on its first-ever workforce skills report. We did this in collaboration with Sinclair Community College’s Department of Labor grant and the Accelerating IT program.

The 42 employers participating in this study represent a cross section of all industries in the Dayton region. Manufacturing, healthcare, logistics and distribution, IT services, finance, defense, library, city and county government, academic institutions and many others took part. Organizations from seven counties contributed resulting in a wide sampling of the area’s IT needs and plans.

We hope that you enjoy the information provided through this report and share it with the students in your family and your friends!

If you would like an electronic version of this report, please contact Michelle Marek at mmarek@technologyfirst.org.
Mobile applications have been developed for internal use by a limited number of employers with iOS mobile being the preferred operating system by 3 to 1 over Android mobile. From a broader perspective, Microsoft .Net and Java developers are in high demand across industries. For hiring employers, programmer openings represent 24% of all planned new jobs in 2015.

Information security is becoming more of a critical area of need and should be everyone’s concern according to employers. The recommendation for college education to have more focus on security and be a part of every student’s curriculum was unanimous among those employers surveyed.

Business systems analyst work with business units translating business requirements into technology solutions. Professionals with an understanding of an industry’s business processes and strong communication skills are required hiring by 26% of employers.

Big data and the ever increasing availability of data analysis tool sets have driven a large unmet demand for business intelligence analysts and data warehouse specialists.

Hybrid cloud is a cloud computing environment in which an organization provides and manages some resources in-house and has others hosted externally. Due to the complexities around the integration of in-house and cloud-based solutions, additional network, security, and administration expertise is needed and knowledge of some specialized tools.

Quality analysts (testers) and desktop support analysts are in high demand for entry level hiring. These positions often lead to higher paying IT positions based on continued learning and job execution.

Project managers are difficult to find but are required hiring for 55% of employers.

Utility staff is an information technology professional that is versed in more than one skill area. More commonly hired by smaller departments, their knowledge usually includes a combination of two skills to include programming, server administration, database administration, and/or security. Utility players have been hired by 25% of employers surveyed.

Critical Skill Shortages 2014

When surveyed employers identified the following skills as:

- Training needed by their incumbent workers
- Skills that are difficult to find when hiring
- Skills that require premium pay to hire or to retain as current employees

These skill shortages could be resolved by offering training or short term certification programs focusing on current employees or professionals interested in entering the career field.

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Information Technology Workforce Forecast 2015

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Overall Statistics

- 59% of companies project hiring this year
- 376 forecasted openings from 42 organizations
- 16% of forecasted openings are for interns
- 84% of forecasted openings are for professionals

Programming Skills in Highest Demand

- 24% of all planned openings are for programmers
- 28% of all intern openings are for programmers

Application skill in highest demand: SharePoint
Where Do We Go From Here? Building An IT Roadmap

By: Dean Auger, SIS

You’ve possibly heard the saying: “If you fail to plan, you can plan to fail”. For many companies who have IT departments, but whose main line of business is not IT, that statement often becomes reality. The operational mode that these departments often find themselves in is one of fighting fires and issues as they arise. Operating this way is not efficient and can cause other problems. We recently helped a business develop an overall IT Roadmap and thought it might be beneficial to share the process and benefits.

It all started with this particular company receiving an out-of-control maintenance bill. They were also having multiple performance issues with other pieces of technology within their network and they reached out to us to come in and give them a second opinion on the maintenance bill as well as discuss the issues. They let us know at that time that they were intending to move everything to the cloud and primarily wanted a short-term fix for the maintenance and other issues.

At the time of that initial engagement, we offered them the option of allowing us to help them develop an overall IT strategy as opposed to just treating the issues they were having. They were open to it and we presented them with a comprehensive plan to make their IT more efficient and proactive as well as aligning the technology itself with the overall strategy of the business. We demonstrated the ROI on the changes we were recommending and showed how implementation would help the department find “extra money” to justify the spending.

To make a long story short, over the course of the next 9 months or so, we helped them completely re-make their IT department. Our engagement has included moving everything in-house, refreshing all of their technology, and solving multiple business challenges. The results have been so good that when they were recently looking to hire new IT management, they even asked us to review the candidates and determine if their skills and leadership would align with the strategy we had developed.

Benefits of Building an IT Roadmap

• By partnering with a single IT vendor to develop the strategic direction, companies can consolidate the different voices that are telling them what technology solutions they need.
• The IT vendor partner is invested for the long term of the entire strategy and isn’t focusing on trying to win single deals for various technologies.
• Increases the chance that the company will stay on track and not lose focus of its strategic direction.
• The IT vendor can help educate to give better understanding of what it takes to bring on a new service or application in house.

More and more, companies like the one above are realizing that operating in the day-to-day of IT without having a short or long term vision or goal is not an ideal situation. In conjunction, IT Departments are often forced to be tactical in nature. If they aren’t fixing problems, they are typically responding to requests from their internal users. Added to that, the business itself also requests new technologies or requirements. Often, this leaves internal IT with very little time to take a step back and analyze their situation and become more strategic.

When they’re operating at that level, these departments seem more like a liability to their organizations as opposed to a group that is bringing added value. In those cases, it makes sense to engage an IT vendor to help them build their plan and bring value to their organization. A vendor partner can do this objectively from the outside without the inherent prejudices that come from working within the IT department. In order to be able to plan a long term strategy with a vendor, the IT department needs to be very transparent as to what their goals and objectives are. If not, it becomes more difficult.

Does your company have an IT Roadmap in place? If so, we’d love to hear some of the things you learned in building it. You can contact us directly at storageguy@thinksis.com.
The Project Manager’s Role in Software Development

By: Mary Lotz, Segue Technologies

Having led lots of development teams and projects, I have occasionally been asked by clients “Why do we need a project manager? The developers know what we want to do; can’t they just do the work? We can maintain the schedule.” Due to my position, it’s hard not to get a little defensive and wonder, “why do they ask?” Do they just really want to update their own project plans?

However, I know deep down why they ask and the reason, of course, is often related to cost. Developers create tangible things that customers can see and therefore value. A Project manager (PM) on the other hand… well, not always. So what exactly are you getting when you pay to have a project manager? A good project manager manages the project’s team, the project’s scope, handles any issues that arise and can remain your reliable and knowledgeable single point of contact.

Management of the Team

To begin with, there’s management of the project team. Technical workers are creative, productive, downright wonderful resources, but they need direction. Most projects include many highly-specialized resources such as developers, analysts, testers, graphic designers, and technical writers. One of the key functions of your project’s PM is to coordinate all those resources and their tasks – to make sure that work is done in the proper sequence with a minimum of time (and money) wasted, and to facilitate communication between these highly-focused (but not necessarily “big picture” aware) members of the project team.

So, okay, that sounds important. But, really, isn’t that just sending a few emails and having some meetings? Well… no, and it’s not the only reason you need a PM. Good coordination and communication are essential to a well-run project. So is managing project scope.

Management of Project Scope

Scope is the way PM’s refer to the body of work to be accomplished in a project. What’s our favorite phrase? “That’s out of scope.” Controlling scope is critical. When a project is planned, everything (resources, cost and the project delivery date) is based on what needs to be delivered. When that changes, at least one of those other factors needs to change. This doesn’t mean that scope can never change. However, it does mean that every change must be controlled and considered relative to the rest of the project. The amount of time your PM will spend on scope management will largely depend on how well and how soon the overall goal of your project is understood by you, the customer.

Handling Issues

Now that we have the resources and the work under control, the project is destined to go smoothly, right? Again, the answer is not necessarily what we would like it to be. There are these things called issues that can get in the way of your project getting done. They can be all sorts of things (external vendor delays, staffing changes, business process changes that affect your new software, budget issues, etc.), and they need to be managed. The PM is responsible for making the work go as smoothly as possible, so management of issues is another critical PM function. And, due to the almost unlimited variety of project issues that can be encountered, this is also a time-consuming activity. PM issues management includes identifying issues, tracking them to completion and (often) creating the solution.

All of these are important functions when you’re working through a project. In my opinion, though, the greatest value that a PM brings to your software development project is the assurance that you have a single point of contact, aware of every aspect of your project, who will oversee the work, communicate with you, and keep work moving forward smoothly. Your PM is the project gatekeeper whose only goal is to make the project (and you) successful.
Looking Forward: What 2015 Will Mean For Data Storage

By: Roundtower Technologies

It’s a good time to look forward to what the future will hold for data storage and the challenges all organizations will have to face. The IDC estimates that over 90% of the world’s data is unstructured and the amount will continue to double every two years after 2014. That means the amount of unstructured data will surpass the terabyte and petabyte levels, moving onto exabyte amounts and higher.

With the rapidly growing amount of data, it is more important than ever that companies prioritize data storage to protect their vital assets and keep a competitive edge moving forward. With this in mind, I took the time to interview an expert on the subject of data storage: RoundTower Technologies very own, Dustin Grimmeissen.

“Large advancements have been made in data storage technology but there will still be three major areas that could cause problems for companies caught unprepared in 2015. These are scalability, data protection and security, and flexibility. Addressing these key spots will greatly improve a company’s ability to stay up-to-date and protected while managing their growing data.”  
— Dustin Grimmeissen, RoundTower’s Storage Practice Manager.

Scalability in a Growing World

Unstructured data is growing rapidly, so companies will have to ensure that their storage scalability keeps up. Having server-attached storage is no longer feasible in a large-scale environment due to the difficulty of managing capacity and the ability to access all information from a central location. A business must be able to design and manage large repositories of information that can scale with the data. With the data consolidated into central locations, companies will be able to manage data protection, security, and lifecycles globally across the enterprise.

Protection and Security: Dealing With Cyber Threats

Last year, retailers like Home Depot, Target, and Walmart were targeted by hackers and millions of customers had their personal information compromised. This year, it was Sony Pictures Entertainment that fell under fire as private information like personal email exchanges, major contracts, and unpublished screenplays were exposed. After this incident, Sony could find its business relationships severely compromised due to the inflammatory nature of the emails and it all could have been prevented with the proper protection. IT managers must keep their organization’s security up-to-date, in order to protect its unstructured data from evolving external threats. It only takes one vulnerability to be exploited to negatively impact a company’s business continuity.

By incorporating security into the storage solution, a company can prevent the unauthorized access, deletion, and loss of valuable data. New technology also gives IT departments the ability to track suspicious actions and anomalies, further preventing any breaches that could occur. Advanced access management technology, like the software from Varonis, gives businesses better control over their network’s access management, allowing them to see and change who can access vital data and who can’t. Data dispersal, keyless encryption, and VDI’s two-factor authentication can further safeguard a company’s ability to protect their unstructured data, taking security to the next level.

Flexibility To Move With The Times

As technologies change, IT environments are also evolving rapidly, which places a strenuous demand on companies to keep pace. Having a personalized and custom built storage solution that changes with the environment can be the key to staying ahead of the rest. However, knowing how and when to implement can be a challenge for most companies. Utilizing the knowledge of specialized companies to architect and deploy the right solution for the business needs can mean the difference between keeping data safe or becoming the next victim of a breach.

“Once a company has solved the “scale” problem by building central repositories of storage, with enabled security policies, the infrastructure will become flexible enough to do more things with the data. The company will gain the ability to control access to data and be more flexible with capacity management, archiving, and it can allow the data to be utilized for more business operations. It’s important for a company to fully realize what a proper solution can do to solve its storage problems.” — Dustin Grimmeissen

Companies Must Focus on Data Storage in 2015

Unstructured data is the fastest growing type of data and is extremely difficult to analyze. While there are many types of software and hardware solutions to help, designing and implementing a custom solution to a company’s unique can be tricky and costly.

Many companies rely on outsourcing their data storage needs to certified experts, which can reduce the cost of ownership and guarantee the best security and storage for a company’s data. As the growth of data explodes, a company’s solution must be able to keep pace and evolve with the changing environment, utilizing the best in technology for maximum flexibility and scalability. Equally as important, data security needs to be kept up-to-date against the rising threat of cyber-attacks that have been victimizing major businesses recently. To be able to properly protect and store their data, companies must evolve their storage and security solutions together.
Overall, this year’s security conference was a huge success. Of those attending, 87% rated the conference either very good or excellent. 100% of them said that they would attend again next year. Keynote speakers included the FBI, Lunarline, and John Bommer formerly from AFIT and currently a University of Dayton Law student.

This is the first year that we sold out at 200 attendees and increased the supplier booth participation to 17 companies. Because of the afore mentioned stats the conference exceeded all budgeted goals so it was also a financial success.

Special thanks to Cadre, Logrhythm, Gemalto, and Lunarline for sponsoring the event.
Most companies regularly upgrade their IT infrastructure to stay aligned with the support policy of the respective system editor. For example, at present, a lot of IT teams are migrating their Microsoft Windows Server 2003 to Windows Server 2012 R2, because the last date of support for Windows Server 2003 is July 14, 2015.

We know it’s imperative for every company to upgrade its infrastructure, but the question is: Is that enough?

If we compare Windows Server 2003 with Server 2012, we observe a time difference of almost 10 years between the two versions. In the context of technologies, it is considered to be a huge gap. As per my experience: In such projects, many companies simply upgrade the version and retain the processes from the old infrastructure. The key reasons being: non-availability of training opportunities for people, no/insufficient budget for training, dearth of time, and the worst reason (from my point of view) is the age-old conservative mentality / approach — “It is working for me, so, why do I need to change it?” Now, this means that such companies will be using new technology with old processes i.e. zero improvements. Do you think it is an efficient way of modernization? Don’t you agree that the improvements and all the cool new features of these new Systems would really help improve an organization’s services?

Continuing with the example of the Windows Server versions… in my previous company, people used old batch scripts and ran them manually on every server. When I looked into it, I saw that there were almost seventy lines in the script; and hence, asked: “Do you know that you can use Powershell, and do the same job in less than ten lines? And that you can use the same script and execute it remotely?” I explained, though it is working for the time-being, what would actually happen when this version is upgraded; and how much time would be spent in just running all these scripts, if one refrains from using new features on centralized management.

A very useful feature — the Powershell Desired State Configuration (DSC) — was introduced with Powershell V4. With this feature, one can deploy a specific configuration and also regularly monitor it. This feature helps reduce the time of configuration (and save money), and guarantees that the services will always be configured as per the requirements (maintaining the quality of service). Even if someone accidentally disrupts (or hacks in to) the existing configuration, DSC will auto-reinstate the last-known best configuration. So, if a company undertakes an upgrade, but doesn’t use such useful features that come with the package, it will only lose out on big cost-saving and process efficiency-enhancing opportunities.

Now, do you still think that just ‘upgrading’ is enough, OR is it also essential to consider… the actual logic behind upgrading the infrastructure and how much money can be saved by efficiently using these new systems? Share your thoughts.

Gregory Bouchu is Senior Infrastructure Consultant for Sogeti Switzerland since 2013. As a consultant, he is working for Infrastructure project based on System Center. In parallel to this, he is working as Datacenter Stream Leader to develop commercial offer for Datacenter Management with Microsoft Technologies based on Windows Server, System Center and Windows Azure Pack.
It is still early in the year and a perfect time to plan your Spring Information Security Cleaning. In 2014 Sony, JPMorgan Chase, and Home Depot were some of the bigger names that joined the growing list of companies that have had their systems breached, and no organization wants to join this list. Knowing there is no single solution to security, a “Spring Information Security Cleaning” needs to be thorough and cover all essential areas. Here are a few suggestions to get you started:

- Review your enterprise’s security policy and reaffirm it with a commitment from executive leadership (President / CEO). If you don’t have a security policy, you need to develop one that has buy-in from the top leadership. Similarly, if it has been more than 12 months since you reviewed your security policy, significant updates may be required. Remember, executive buy-in is a requirement.

- Know what needs to be protected. While it’s a goal to protect 100% of all enterprise assets, the sobering reality is that customer data, intellectual property, and trade secrets have a higher priority in protection than sales and marketing collateral that is typically posted on the Internet.

- Review all extranet connections and determine what security controls are in place. For example, an HR partner may be critical to issue paychecks, but how far into your enterprise network can the HR partner reach versus how far should they reach? Is there accountability for every physical server, router, and firewall by name (or at least vendor)? In the virtualized world that we live in, which virtual machines sit on physical servers? Most importantly, are the assets you manage properly patched with default passwords removed and non-essential services turned down?

- Does your enterprise have a device policy? Smartphones and tablets have become essential business tools and have their own security challenges. What about BYOD (Bring Your Own Device)? Should you consider a service like AT&T Toggle that partitions the device between personal and business use? If you have a device policy, review it — if not, it is time to develop one that suits your enterprise. Device concerns on data protection, acceptable use, and wiping data in case of theft need to be addressed by every organization.

- Make sure that the acceptable use policy is clearly documented and available for all associates and contractors. Internet access to social media, including YouTube, may not be bad, but has to be part of the acceptable use policy. With access to social media comes the responsibility that employees adhere to acceptable communication standards.

- Incident response planning is a necessity and helps determine who to contact both internally and externally, who to communicate with, and what recovery steps are required. This should include a periodic drill to understand what challenges exist in the communication process during a breach.

It’s easy to write a list of what you should do, but implementing these steps is not easy. Look for the best practices from supportive industry groups, professional services, and sometimes, common sense. When you have accomplished these steps, do not put a check near the task and ignore it until next year. Security is an on-going process, not a one time project.

Michael Sidman has 15 years of security and networking experience at AT&T, supporting banking, insurance, utility, and manufacturing clients with a number of issues including DDoS mitigation, SIEM, and Firewalls/IDPS. Michael lives in the Cleveland area and is a Certified Information Systems Security Professional.
The Technology First Leadership award recognizes the contribution of information technology professionals ensuring a vibrant Dayton community. Recognizing Individuals and Teams exemplifying Technology First Values: creating a community to share knowledge, grow business, and explore the future.

Categories:

**Emerging Technology Team**
_An IT college student team that exhibited excellence while delivering a capstone project._

- **University of Dayton MIS**
  Christine Lutz, Elizabeth Calvey, Kaitlin Knife, Thomas Leslie
  CareSource

- **University of Dayton MIS**
  Nick Jurgens and Dexter Bensman
  Imagery Solutions

- **University of Dayton MIS**
  Andrew Lavoie, Kristina Hoying, Eddy Grahovec
  Ross Group

- **Clark State Community College**
  Shaun Foor, Alex Fryman, Keith Carrier, Bill Johnson
  Riverside Research

**Outstanding Team**
_An IT department that has impacted the efficiency, productivity, and performance of their company._

- Midmark
- Montgomery County
- Hobart Service
- Teradata
- Community Blood Center/Community Tissue Services

**Innovative Technology Team**
_An IT company or IT department that has designed and implemented an innovative use of technology._

- Montgomery County
- Sogeti
- McGladrey
- Perry ProTech
- University of Dayton (UDit)
- Midmark

**Best IT Services Company**
_An IT company that has increased its investment in the Dayton region through revenue, jobs, or capacity._

- Mafazo: Digital Solutions
- CDO Technologies
- Netgain Information Systems

**Outstanding IT Executive**
_A senior level professional responsible for influencing progress and developing teams through leadership excellence._

- Mark Human .................. Booze Allen Hamilton
- Matt Franz ........................ Clark State Community College
- Tom Skill ........................ University of Dayton
- Bryan Hogan ..................... AfidenceIT
- Diana Tullio ..................... Standard Register
- Dave Rotman ................... Cedarville University
- James Alford ....................... Montgomery County
- Monique McGlinch ........... Midmark

The Technology First Leadership awards will be announced at the Thursday, May 14th event which will be held at the University of Dayton Arena Flight Deck. Larry Hansgen from WHIO Radio will act as emcee.

For more information visit www.technologyfirst.org.
Maximize the Value of Capstone Projects for Your Company

Traditionally, graduate programs (as well as some undergraduates programs) relied on a thesis as means for the student to demonstrate an understanding of the concepts presented to them during the course of the program. In many cases, the thesis was considered an academic deliverable and did not relate directly to the student's work environment.

A more practical approach to validating the student’s ability to demonstrate the new skills and knowledge acquired during the program is the evolution of the capstone project. The capstone project approach was developed to integrate the learnings associated with the program and the real world environment in which the student worked. The student is encouraged to pick a project that will benefit their employer, which in many cases, is funding all or part of the tuition. The capstone project needs to satisfy two major objectives: demonstrate the student’s mastery of the program’s major concepts and techniques, and provide a significant return to their sponsoring organization.

The student is encouraged to find a project sponsor who has the responsibility for the area or processes that will be affected by the student’s project. The process of obtaining an organization sponsor will bring additional visibility to the student proposing the project and potentially provide them with a new network within the organization. This relationship with the organization’s sponsor also allows the student and organization to scope a project with the available resources and capabilities to ensure a successful outcome. While some graduate theses have as their key deliverable, the final paper, the capstone project’s key deliverable is a positive change for the organization resulting in increased efficiency, effectiveness, or growth. While the audience for any oral presentation of a thesis is the academic community, the audience of a capstone project is both the academic community and the management team of the organization.

The Master of Information Systems at Wright State University has a long history of successful capstone projects that make a difference to the sponsoring organization. For example, one local company needed more visibility into their order status. The capstone project took a look at the current processes of the organization and came up with a solution to implement a single place to obtain order status regardless of the systems involved. This has resulted in over $480,000 in annual savings, not including the soft savings such as customer satisfaction, analytics opportunities, and faster response time.

Another great capstone project dealt with a company that, like most of us, had to deal with maintaining a high quality IT infrastructure while dealing with reduced budgets. The goal of the capstone project was to create an architecture that allowed flexibility and scalability without sacrificing security or reliability. The capstone project lead the team to look at cloud computing, which resulted in a 69% efficiency improvement, and a return on their investment of over $800,000 over a three year period.

Organizations are always in the position of determining where to invest their limited funds. Many times when organizations are trying to determine whether to support the higher education aspirations of their employee, they are considering what the positive impacts the program will have on the organization. Very often, one of the key aspects of this decision is determining the impact of the investment on the retention of the employee through providing the educational opportunity and the hope that providing this opportunity will build loyalty with the employee/student. The beauty of the capstone project is that it has the ability for the organization to receive immediate payback from the program. The capstone project also provides the organization a glimpse of potential future projects that can be undertaken due to the fact that employee/student has obtained knowledge through the program and the experience gained through the capstone project.

One more significant benefit to the capstone project is that the student gets a faculty advisor to assist with the project; this is like having an additional consultant on the project. This is a real advantage when they are undertaking a project in an area that the student (or organization) is unfamiliar. The organization will get the advantage of a new perspective and another set of eyes on the project.

The bottom-line is that the capstone project provides a practicum to the student while allowing the organization to immediately benefit from the investment they made in the student.

Mr. Don Hopkins, ISSCM Advisory Board Chair, donald.h.hopkins@gmail.com
Ms. Valerie Stueland, Director for Master Programs, Department of Information Systems & Supply Chain Management, Raj Soin College of Business, Wright State University, Valerie.Stueland@wright.edu
New Partner

Technology First is proud to announce as a new annual partnership with McGladrey. McGladrey is a leading provider of assurance, tax, and consulting services focused on the middle market. Welcome McGladrey!

Brains Over Brawn

By: Paul Moorman

Oh so many years ago when my children were growing up I instilled the message that brains are stronger than brawn. In other words, that thinking through a problem will usually result in finding an easier solution than simply applying more brute force. The shady side of the Internet has figured that out and use socially engineered attacks and keylogging malware to get passwords in clear text. It’s about time that the good guys starting using their brains, stop suggesting stronger passwords, and start getting smarter at identifying and stopping authentication attacks.

I’ve written before on the statistics around passwords and that it is nearly impossible for a crook to simply guess anything other than the most simple of passwords, most of which inexplicably are allowed in most systems. Passwords structured like “can9dy11” or “mis0s0up” require billions of attempts before they are likely to be guessed and shame on the IT department that doesn't detect and prevent more than a few incorrect password attempts. Ideas like taking a phrase like “I would like to destroy every password I have” and turning it into “Iwltdep1h” is great, at best, for passwords that don’t ever have to change, but coming up with a new phrase every 60-90 days and repeating the learning curve to remember this formulation of password just doesn’t make sense, unless you are one of the few that have a perfect memory and total recall. Us normal folk just struggle to remember where we left our car keys. Stop treating us like Einstein. And then blaming us for choosing bad passwords. Ultimately it’s your fault Mr. or Ms. security professional that we do, because you allow us to use them.

A recent security headline was an OpenSSL bug that allowed an attacker to collect information stored in memory, which among other things could be your password. No password was immune to this type of leak. No combination of length, capitals, special characters or other “best practice” (a term I despise) offered any protection. So what did I hear from every expert quoted in the press about how to protect yourself? Choose harder passwords. Would it have protected you? No. Would it have made the crooks job any harder? No. Did the interviewer ask that question? No. Would it drive you nuts having a harder to remember password? Probably. Would you be more than mildly upset when you found out this didn’t help the least bit? Absolutely!

The answer is to move beyond passwords and add some form of secondary challenge, at least for that small number of systems that contain financial, health or other personal information valuable to the crooks. Let’s try not to solve world peace here. Let’s get focused and truly solve the small part of the problem we really care about, for as many people as we can. The clear technology winner, for now, is two-factor authentication. In a nutshell this involves entering a second code, but one you don’t store in your brain. It can be delivered via a smart-phone app, a phone call, a text message or an email. Many popular web sites, like Google’s Gmail, Apple’s iCloud and Bank of America offer this as an option. Check out twofactorauth.org for a list of popular web sites and if they support a second factor. Would two-factor authentication have drastically reduced the risk associated with the OpenSSL issue? Absolutely! Was that ever mentioned? Sadly not. Makes you wonder if security folks really want the problem solved or just like to hear themselves talk.

We also need to detect authentication attacks and make a meaningful response. Years ago I made a credit card purchase in Key Largo, Florida and immediately received a phone call to verify it. Turns out that lots of fraud occurs in that area. When I travel internationally I call the credit card company and tell them when and where I’ll be. I recently added the option to my primary credit card to send me an email every time a purchase is made on my card. If I spot a charge I didn’t make, I can call and have my account locked out. These are simple, yet effective, methods to detect fraud and limit their impact. These types of methods are also appropriate to IT security, and need to be routinely deployed to protect our most important online assets.

It’s time to stop acting like John Henry, who believed his brawn was better than the brains that built the steam-powered hammer. According to legend he succeeded, only to die in the effort. Let brains prevail, or die losing the authentication battle.

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Writers:
Our mission is to support the growth of Greater Dayton’s information technology industry. Technology First provides a forum for educators, business, and technical professionals to communicate their expertise and lessons learned while working in the field. Please submit the article in Word, preferably with 500 to 700 words, with any graphics in pdf to agallaher@technologyfirst.org. Please include your name, business organization, business address, phone number, fax number, e-mail address, and a brief description of any professional accomplishments. Please also include a digital photograph if available.

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Microsoft SharePoint Foundation 2013: Site Owner

Learn from the experts and take your career to the next level!

Microsoft® SharePoint® 2013 is a platform designed to facilitate collaboration and allow people to use familiar applications and web-based tools to create, access, store, and track documents and data in a central location.

As such, SharePoint has many distinct features that must be enabled and configured, and many content structures that can be selected, added, and configured. In this course, you will learn how to create, configure, and manage a SharePoint Team Site so that your team or organization can share information and collaborate effectively.

SharePoint content structures and configuration options are complex. Site owners must understand what features, options, and content structures are available in SharePoint, and how to properly configure them. With SharePoint sites, features, and content structures properly implemented, users will be able to securely share files, collaborate on documents, and access information they need to work with their colleagues more effectively.

Course Objectives:
Upon successful completion of this course, existing SharePoint site users will be able to create a SharePoint team site and perform basic content management tasks on a single SharePoint site. They will:

• Create and configure new SharePoint sites.
• Add document, asset, and wiki page libraries to sites and configure them.
• Add and configure announcement, task, calendar, contacts, and custom lists.
• Create and implement custom forms.
• Configure site settings, site search, and site navigation.
• Assign permissions and access rights to sites, users, and lists and documents.
• Configure content roll-up, and finalize site configuration.

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