

# **TECH**Minutes

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## In the Near Future, Light Bulbs Will Transmit Data



Your business's wireless Internet connection is one of its most valuable assets,

and without it, your operations would surely suffer. Your wireless technology, like smartphones, tablets, laptops, and even your network depend on it in order to function properly. WiFi is known to be pretty inconvenient at times due to questionable...



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## About NetWorthy

NetWorthy Systems has been serving the Baytown and Beaumont area for over 20 years, proving IT Support such as technical helpdesk support, computer support, and consulting to small and medium-sized businesses.

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# What's the Benefit of Using Solid State Drives vs. Hard Disk Drives?



When it comes to storing data locally on your organization's workstations, you have a couple of options. There are solid state drives and hard disk drives, but the average user isn't tech-savvy enough to understand the difference between the two. Regardless of what kinds of devices you use for your business, you should be aware of how they work and what you can expect from them.

Your Small Business Technology Information Source!

You might be surprised by how different solid state drives (SSD) and hard disk drives (HDD) are. Here's a quick rundown

of how they both work, and what the primary differences for the business owner are.

## Hard Disk Drives

First, we'll discuss how the hard drive works. It's called a hard disk drive because there's literally a disk inside the drive spinning while it functions. These disk drives are generally found inside computers, but can be purchased externally and plugged in via a USB port for extra data storage options. Unfortunately, due to the machinery operating within the hard disk drive, they often run into operational failure that solid state drives avoid. Because of the mechanical element, they are much more prone to shocks, bumps, and drops.

(Continued on page 2)

## How Sloppy Security Practices Put Companies at Risk



In today's online business environment, security is nothing to scoff at. Yet, there are many businesses that don't play by the rules when it comes to monitoring account security on a shared network. This puts both themselves, and their businesses, in danger.

According to a recent study by Dimensional Research, a grand total of 83 percent of respondents found difficulty with managing administrative passwords and accounts. This number is huge, especially considering how important administrative

accounts and passwords are to maintaining the integrity of any business's critical systems. This can only mean one thing; businesses have the systems and practices put into place, but they're not being enforced as strongly as they should be.

Here are some other statistics to take a look at:

- 37 percent of all administrator passwords on mission-critical hardware and software aren't consistently changed.
- 37 percent of respondents claim that they use shared credentials with other administrators.
- 31 percent claimed that they were unable to consistently identify individuals responsible for administrator activity.
- 75 percent claim to have a default password changing process, but only 26 percent admit to changing passwords frequently.



## (Continued from page 1) Solid State Drive

The solid state drive, in comparison to the hard disk drive, is much faster due to its tendency to function without requiring the reading or writing of data. It also doesn't have the rapidly spinning hardware that the hard disk drive must endure. Furthermore, solid state drives utilize the power of flash memory to provide superior data transfer rates and reliability, while offering a greater physical integrity than the typical hard disk drive.

## **The Difference**

The greatest difference between SSDs and HDDs is easily the amount of data stored on both of them. Hard disk drives can generally hold more information than an equally-priced solid state drive while the SSD has a significant lead in efficiency. SSDs use less power, work at higher speeds, and are much less likely to experience untimely, hardware failure, making them a more reliable choice all around.

However, one of the largest differences between SSDs and HDDs is the immense difference in value per byte of data. According to PCmag.com:

At one-sixth the storage capacity and three times the price of a hard drive, there is a huge discrepancy in cost per byte between the two storage media. However, in 2014, 500GB at USD \$349.99 was considerably less expensive for an SSD than just a few years prior.

While it's significantly more expensive to run with solid state drives for your technology, you need to consider all of the benefits before deciding which kind of storage your business wants to commit to. Do you require a significant increase in the performance of your workstations, or are you more concerned with ensuring that they have the space required to store excessive amounts of data?

If you're ever unsure about how you should be storing your data, or if you could use a few pointers on how best to manage your infrastructure's information, give NetWorthy Systems a call at 877-760-7310. We can assess your current technology solutions and determine whether you need a more solid approach to your disk drive solutions.



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## In the Wireless Age, Your Wired Network Might Be Outdated



Business owners are taking great strides toward freeing themselves from the

confines of the office environment once and for all. This means integrating wireless technology into every aspect of the way you handle operations. However, there are still some uses for wired technology that wireless cannot facilitate.

Should your business go completely wireless? Not necessarily; there are some advantages and disadvantages to going wireless, and you should be aware of all of them before rebuilding your infrastructure to facilitate only one of these.

## The Case for Wireless

The primary benefit of wireless technology is the lack of wires that might restrict movement of both infrastructure components, and your workers. In this case, you don't have to run cables all over the office to add new workstations or access points. This eliminates the need for some sort of cable management system, and it essentially makes your network scalable and much easier to manage.

This isn't to say that wireless technology is perfect. Your wireless connection could be disrupted by something as commonplace as a microwave or other household appliances. Furthermore, it becomes even more necessary that your organization secures any and all access points for the network using some sort of encryption or password protocol. Anyone within range of your WiFi signal can be considered a threat, so it's important that you take a firm stance on wireless security, especially with Bring Your Own Device (BYOD) and the Internet of Things (IoT) gaining traction in the work environment.

## The Benefits of Wired

While wireless technology is capable of making your business more mobile and

flexible, a wired infrastructure is known to increase security and reliability. Since any devices being added to your network must be physically plugged into or connected to your network, you don't have to worry as much about the odd hacker randomly plugging into your network. Furthermore, a wired network connection isn't as affected by elements in the environment, like walls, floors, and so on, like a wireless connection would be.

As previously mentioned, wired technology makes for a more complex infrastructure, which makes it much more difficult to add new users and new equipment without carefully considering the cabling procedure.

Furthermore, you're tied down to the location, which means that you'll need a wireless connection anyway if you want to fully leverage your business's technology.



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## How Sloppy Security Practices Put Companies at Risk

#### (Continued from page 1)

- 12 percent of respondents claim that they only change passwords in the event of a potential security issue.
- 4 percent never change their admin passwords.

So, why is this the case? Why do businesses have trouble guaranteeing their account security? In some cases, they could be taking the wrong approach to security best practices. There have been horror stories of organizations using antiquated software to track who logs into accounts, like sign-in charts or even Microsoft Excel. Such methods are generally prone to user error and are frowned upon in today's tech-centric environment.

The solution to this predicament isn't a simple approach. It's a two-pronged offensive that requires the enforcement

**Give Your Business the Advantage of Managed IT Services** 



thrive on technology, and constantly use it to push their initiatives forward. However,

**Businesses** 

the latest solutions and business technology can often be complex, and it usually requires the attention of skilled professionals in order to guarantee its optimal efficiency. The only problem is that small and medium-sized businesses often don't have funds to hire in-house IT technicians for their technology maintenance needs. Managed service providers offer a unique benefit for these budget-minded organizations.

We want to make the lives of small and medium-sized businesses easier by managing their IT. This includes the complete and total management of any technological assets that your company employs, including workstations, servers, cloud of proper username and password protection, and the monitoring of access logs by your business. For your passwords, no two users should have the same credentials at any given time.

"By keeping a close watch on your access logs, you can effectively maintain maximum security while ensuring that your employees are held accountable..."

Everyone should have their own unique access credentials that follow password best practices. Users should make passwords long and complex, with both upper and lower-case letters, numbers, and symbols. Using an enterprise-level password manager can make remembering these long passwords much easier.

infrastructures, your network security, data backup and disaster recovery, and so much more. All of these technology solutions are found in, more or less, every major enterprise, but smaller businesses often don't understand the importance of these solutions, or simply don't have the assets available to spend on integrating them. Managed service providers endeavor to bring the best technology to every organization at a reasonable price.

While there are countless benefits that come from taking advantage of managed service offerings, there are two that really stand out: 1) Proficient, hands -off technology management, and 2) Cost-effective technology solutions.

#### **Outsourced IT is Better IT**

Outsourcing responsibilities to an external party might not seem like a good idea right off the bat, but when you think about it, it makes more sense to outsource than it does to hire a full inhouse team. If you don't have a dedicated in-house IT staff, you're likely taking Another great way to ensure that your organization's employees stay accountable is through monitoring and maintaining access logs that dictate when and how users access your network. This is important for several reasons. For one, it makes sure that only authorized users are accessing the network. Second, you know that something is wrong if someone from the other side of the world accesses your network. By keeping a close watch on your access logs, you can effectively maintain maximum security while ensuring that your employees are held accountable for their actions while on the private network.

For more information about security best practices, give us a call at 877-760-7310.



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on some responsibility for ensuring your technology functions properly. If not, your technology isn't being given the maintenance it needs to continue operating at maximum efficiency.

It's much more efficient for your company's workload to outsource the responsibility to NetWorthy Systems. Our skilled technicians are more than capable of performing the required maintenance on your business technology. More importantly, though, your team will be able to take back any time spent on maintaining technology, and instead use it for better purposes, like introducing new initiatives that are designed to increase profits.

#### **Outsourced IT is Cost-Effective**

You don't need us to tell you that the latest technology solutions are expensive by nature. Enterprises invest in the latest technology to give themselves a competitive edge, but the average...



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## Your Business Can Benefit From the Same Analytics Technology **Used By Google and Facebook**



from producing a satisfactory return. It might be time to start measuring your company's ability to meet expectations. With the use of state-of -the-art computing programs, you can locate the problems your organizations is having and work toward patching the process any way you can. While data-collection was once a difficult system to implement, new computerdriven, business-intelligence software can provide you with the vital answers you need to make the changes required for profitability.

At the core of these analytics is a computer that's outfitted with the latest in deep learning software. If you haven't heard of deep learning before, it is technology using advanced algorithms that are run by advanced computing constructs to provide sound predictions for professionals to use in order to build efficient systems. By being able to capture and analyze everything your company does,

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you can come up with the solutions you need to take the organization to the next level.

One example of this in practice is how the Google Search attempts to guess what word or words you are going to type into the bar. As each new letter is added, Google, using your profile's search history, and the frequency of searches conducted by other users gives the user as relevant of a search result as possible.

When these systems are used by businesses, this deep (or machine) learning provides incredibly accurate predictions on how the complex systems that a business depends on will fare over a certain amount of time. This happens by mining the data for actionable information and is often remarkably precise. Typically, organizations conduct data analytics for the purpose of streamlining aspects of your business that they have had trouble controlling costs for in the past.

Some of the most important names in computing are at the forefront of this new and "deeply" interesting technology. Industry giants such as Google, Facebook, and Microsoft have begun creating large deep learning systems. Even Apple, known the world over for its proprietary access to improved individual cyber security, has recently purchased deep learning specialists Vocal IQ and Perceptio to enhance their ability to collect and decipher informational trends.

With the world's most predominant software companies taking on the exorbitant cost to push in deep learning forward, it seemingly presents a situation where these companies are all after the same thing. That thing is Artificial Intelligence.

Artificial Intelligence, or AI, has been a favorite of dystopian fiction writers for decades. The idea that a computer could ultimately be sentient is one that is hotly debated on forums and among technology aficionados. One element of AI is certain; in order to meet the lofty criteria, these systems need to be able to compute elements the way a human mind does. This is where deep learning comes in. Deep learning platforms use complex...

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We partner with many types of businesses in the area, and strive to eliminate IT issues before they cause expensive downtime, so you can continue to drive your business forward. Our dedicated staff loves seeing our clients succeed. Your success is our success, and as you grow, we grow.



Tim Beard Managing Partner



Mike Beard **Managing Partner** 

