

# TECHMinutes August 2018

Providing IT Solutions Nationwide

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#### **Know Your Tech: Safe Mode**



If you are trying to identify a specific issue with your PC, it can be difficult to do so due to the

fact that there are so many moving parts in an operating system. Still, you want a secure way to find the problem and diagnose it. Thankfully, Safe Mode allows you to take a look at your computer in its most basic form to see what the root of the issue is.

What Safe Mode Does Chances are that your business' computers have a lot of extra...



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## **About Global Tech Solutions**

We provide IT Support such as technical helpdesk support, computer support, and consulting to businesses nationwide. It's always been our goal to provide enterprise-level IT practices and solutions, with small business prices.

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## Is Blockchain the Future of Cybersecurity?



A lot has been made of the blockchain recently. Not just because it is the technology used to fuel the thousands of cryptocurrencies there are now, but because the distributed nature of the technology has become the model for many new technological strategies. There are plans to use blockchain technology to do a great many things, but one element where blockchain can help immediately is for cybersecurity. Today we'll take a look at the blockchain and why it may be the key to the future of network and cybersecurity.

#### **The Genesis Block**

When the Internet was finally taking off in the early 1990s, there were many detractors who said that it was a fad. There was an article written for Newsweek by astronomer Clifford Stoll that was titled, "Why the Web Won't Be Nirvana". You see, in 1995, the Internet wasn't the tool you think of today. It was a brand-new technology without the breadth of website and application development that has made it into the virtual world that it is now. In the first paragraph he wrote:

Visionaries see a future of telecommuting workers, interactive libraries, and multimedia classrooms. They speak of electric town meetings and virtual communities. Commerce and business will shift from offices and malls to networks and modems. And the freedom of digital networks will make government more democratic.

Baloney...

23 years later, except for making government more democratic, it all happened, leaving a once-cynical Stoll to say, "Of my many mistakes, flubs, and howlers, few have been as public

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# Some Businesses Don't Need Every Bell and Whistle



When you decided to start your business, you had to be overwhelmed with everything that you had to do just to get it off the ground. If you are like many entrepreneurs, getting a product to market was the aim then, but as business continues and your organization grows, it's likely that you've looked to technology as a benefit. So, when does the amount of technology you have become a hindrance to your bottom line? We will take a look at what happens when an organization takes their love of technology too far.

Some technology is a must, and as a technology provider we often see how organizations can look to technology to solve a lot of their operational problems. Technology can protect and disseminate data. Technology can fuel company-wide collaboration. Technology can ensure that deadlines are met, and work is assigned to the right people. What happens when there is too much technology that has to be used in order for people to effectively do their jobs?

#### **Unnecessary Technology**

Small businesses don't always need the latest and greatest solutions in order to maximize their ability to generate revenue. More often than not, the more technology an employee

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## Is Your Data Recovery Plan Going to Work?



If you're ever asked about your data backup solution, the last answer that you want to give is that you don't

know what measures you're implementing to keep your organization safe from a worst-case scenario. There are different kinds of data backup and disaster recovery, but they almost always depend on two specific benchmarks: Recovery Point Objective and Recovery Time Objective.

We'll walk you through the various differences between RPO and RTO, as well as discuss the major strengths and weaknesses of both in regard to the various types of data backup practices out there.

#### **Recovery Point Objective**

How much data is at risk in the event your organization suffers from a data loss incident? If you're not taking advantage of data backup services, it's likely that all of it is at risk. Either way, it doesn't matter if it's only a handful of files or your entire infrastructure; data loss is data loss, and your organization could lose precious productivity and efficiency because of it. You should never assume that any amount of data loss is acceptable. After all, you never know when you'll find certain information useful. Your ultimate goal should be to minimize damage loss whenever possible.

## "If you're ever asked about your data backup solution, the...'

In a sentence, you can consider your recovery point objective the amount of data that your organization should strive to reach following a data loss scenario. In almost every case, you shouldn't settle for anything less than 100% of your data. Modern data backup solutions can help your organization accomplish this through the use of frequent snapshot backups which are designed to minimize data loss as a whole.

#### **Recovery Time Objective**

The other half of a data backup and disaster recovery solution is how long it takes your organization to recover. It goes without saying that if your organization can't recover its data in a timely manner, you stand to lose out on a lot

of productivity. Workers who no longer have access to important data or infrastructure services won't be able to do their jobs, making their existence in the office a moot point. Any situation where your organization can't function as intended can be classified as downtime, and by extension, an operational deficit.

Your goal should be to minimize recovery time so that you can get right back to work following a disaster. The ideal data backup solution should utilize the cloud to advance these efforts because of how intuitive and functional its options for data backup are. By utilizing the cloud to deploy a backup in the event of a loss incident, you can almost immediately recover as long as the data has somewhere to be deployed to.

Does your business need a cloud-based data backup and disaster recovery solution that can help your business optimize RPO and minimize RTO? Global Tech Solutions can help. To learn more, reach out to us at 718.360.2000.



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# Is Blockchain the Future of Cybersecurity?

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as my 1995 howler... Now, whenever I think I know what's happening, I temper my thoughts: Might be wrong, Cliff..."

So when looking at the potential uses for blockchain, it should be understood that the technology is still very much nascent; and, has its detractors.

A contributing writer for Forbes, Frances Coppola, took down the technology in an 2016 article starting the article with, "I'm fed up with the hype around blockchain. It's not rocket science, it's not revolutionary and it's not even that smart. And it's not going to change the world." She goes on to talk about how it's just a stripped-down payments system and that since it does

not fundamentally change the way payments work, that it's just slightly more convenient, but doesn't eliminate the need to trust the vendor and or customer.

There are hundreds of potential applications for blockchain, and if Coppola is right, the \$1.3 billion in venture capital blockchain-related technologies have garnered so far in 2018 alone suggests that some of the most risk-averse investors in the world are investing money in a burgeoning technology that will produce faulty applications. More likely, however, that like Stoll, the one part of the equation she hasn't taken into account is the human ingenuity necessary to make technology like this into viable applications.

#### **Another Block In the Chain**

With data increasingly becoming a premium asset, and cyberattacks more prevalent and targeted than ever, organizations of all types are attempting to find a solution that could stave off bad actors and create a secure environment for data. Blockchain is increasingly being considered as the technology that will produce the type of security tools needed by every organization.

Blockchain has the potential to do just that, and that's why you are seeing the kind of VC investment that you are. Since the technology can already provide consensus, and is by nature...





## Some Businesses Don't Need Every Bell and Whistle

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has to deal with, the more stress it will create for that worker, especially if the work that they are tasked with has nothing to do with technology. For example, a CRM is a great way to manage both your customers and interdepartmental communications, leaving expectations well-established, but if you have five employees, it may just be overkill (even if they each operate as their own department). You simply don't need to track how long things take, how your customers relate with your company, and all the other things that a dedicated CRM can do for a company, because with five people on staff, you can get a pretty good idea how they are doing by just observing their work-related behaviors. That's not to say that a CRM program isn't useful--of course it is--but, until you have a large customer base filled with a multitude of relationships, and a staff that needs centralized software to be their most productive, it

probably isn't software you need if you are trying to get the most productivity out of a limited number of employees.

That's just one example. Any technology that isn't absolutely necessary can be a waste of both money and time for your business, so you need to be diligent about implementing the technology you need, and tabling implementations that may be too costly to run at this juncture. The best way to ascertain if a technology is right for your small business is to look at its potential ROI. We'll use a CRM again. If you run a business with five employees, the time spent utilizing the CRM may actually cost your company sales, the direct opposite intention of the software. However, if you run a business with 40 people in four different departments, chances are that there is simply too much data, and too many relationships to manage without a solution dedicated to helping your staff oversee it all.

### **Old Technology**

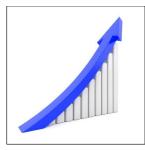
On the other hand, if you are an established business who has had their shingle out for several years, has a dedicated customer base, and is still growing, technology can be a major benefit, except when it's really old. Old tech not only doesn't have the operational effectiveness that it once did, it also opens your organization up to increased management and support costs, and risk of security breaches.

Some organizations hold on to their technology too long because they need legacy programs to effectively deliver their products and services, while others hit a financial wall and have to table their IT improvements for a time. Whichever, it can leave your organization's IT a mess and can have...



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# Access to Data Often Creates Opportunities for Workers



Every business relies on some sort of productivity. Whether it's sales, manufacturing, distributing, managing, or

support. If you are looking for a way to get more from your staff, giving them direct access to all the data they need to do their job properly can go a long way toward putting them in a position to succeed.

One way that many organizations have helped their employees become more productive is by embracing cloud computing. With cloud applications and file sharing, people can get the access they need from anywhere that has an Internet connection, on any device that supports a web browser. Today, we'll introduce you to the modern cloud-hosted productivity suite, and how they may just be what the doctor ordered for your business.

#### **Cloud-Based Productivity Suites**

The productivity suite has been around for decades. It typically offers users a note taking application, a word processor, a spreadsheet program, and a presentation software. Today these suites are available in the cloud which provides users the newest version of the software, integration with the other software in the suite, and associated cloud storage for an affordable monthly fee billed per user. This eliminates the headaches attached to older productivity suites that demanded that IT administrators upgrade to new versions of the software when they are released, and also the need to manage the licensing of the software. By giving your employees access to productivity applications from anywhere, many organizations see increases in collaboration, cooperation, and productivity.

#### **Pitfalls for Seamless Access**

Access to applications, storage and more through the cloud can provide a big boost for a business, but there are some qualifications that need to be addressed. First of all, we all know that security is extremely important for any organization. The more devices allowed to access your business' data, the more potential security issues can pop up. To mitigate the risk of providing your employees with this kind of seamless access, the IT professionals at Global Tech Solutions suggest that you integrate a virtual private network (VPN) solution for your employees. This solution provides the necessary security by presenting workers an encrypted tunnel in which to send and receive data, mitigating the chances that data can be intercepted when sent or received through the VPN.

If you are looking to give your staff the tools they need to be productive in the office and on the go, reach out to our consultants today and they can present you with the right technology for your needs. Call us today at 718.360.2000.



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## 5G is Still Going to Take A While



As technology has improved in function and convenience.

we seem to demand more and more of it at an increasing pace. Take mobile data as an example: 4G was introduced in 2009, and less than a decade later, there is high demand for 5G. Unfortunately, while 5G has been worked on for some time already, it isn't likely that it will be commonly available anytime soon.

The technology being touted as the driving force behind 5G has quite a few practical issues, many of which may prove to be too much for the anticipated improvements to offset. Many of these issues are rooted in the proposed use of enhanced mobile broadband (eMBB) via millimeter wave (mmWave) and the inherent issues with this plan.

#### Range

A big problem comes from the range of mmWave. Currently, 4G signals can reach anywhere between three and thirty miles, while mmWave can only reach a third of a mile - one ninth of its range now, under ideal circumstances. In order for 5G through mmWave to be successful, there would need to

be some major infrastructure updates.

This has been addressed in the planning processes, as it is likely that the cell towers we are accustomed to today would instead be replaced by shorter-range femtocells. These femtocells would be approximately the size of a microwave oven, and could be added to existing pieces of infrastructure, like light poles, traffic signs, and even public transportation vehicles like buses. However, these open up the idea of implementing 5G to more complications.

#### Connectivity

For example, mmWave signals are incredibly easy to block, which is why there would need to be so many femtocells added to the existing infrastructure. When something as simple as an unfortunately positioned traffic sign can block a signal, signals need to be coming from more than one direction.

There is also the matter of bandwidth that needs to be addressed. Consider how much usage each femtocell would see - they just wouldn't be able to network as efficiently as necessary for proper use. This would mean that the entire network of femtocells would also need to be connected via costly

high-speed fiber cabling, which would be an expensive and time-consuming endeavor.

#### **Cloud Confusion**

With cloud computing having become such a widely utilized tool, it only makes sense that the femtocell network would be managed via the cloud. By creating a virtual network in the cloud, software-defined networks (SDNs) and network function virtualization (NFV) could be leveraged to manage the 5G network. Trouble is, there are various kinds of SDNs and NFV, with no one standard. The Linux Foundation is working to change this, but this still isn't an issue that will likely be resolved in the near future.

Regardless, 5G is going to happen - femtocells are inexpensive and, for all their faults, a potentially beneficial way to make it possible. Furthermore, people want better mobile bandwidth. The technology is just going to take some time to develop.

However, if you want to improve your business' connectivity now, we can help. Give Global Tech Solutions a call at 718.360.2000.



We partner with many types of businesses nationwide, 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.



Abraham Brown CEO

**Tech Trivia** More than 16 billion photos have been uploaded to Instagram since launch.

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