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Desktop Buyer's Guide 2019, Part IV: Videos, Graphics, and Monitors



Your new desktop isn't going to do you much good if you don't have a screen to plug into it. Let's

talk about considerations to make when purchasing a new desktop when it comes to your display.

How Many Monitors Do You Want?

Some people wouldn't consider having more than one monitor on their home PC, or even at work. It's a strange concept if you haven't tried it.

That said, we highly recommend you try it, especially at work. It...



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About Directive

We are a technology consulting firm specializing in technology implementation and management for businesses. We're known for providing big-business, Enterprise-Level IT services to small and medium-sized businesses.

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How to Properly Train Your Staff to Avoid Phishing Attacks



In the late 1970s and early 1980s, Bell telephone companies were making a mint off of offering the ability to call your friends and family that lived outside your predefined region, charging up to \$2 per minute (during peak hours) for long distance calls. The problem for many people was that these regions kept shrinking. Some people decided to combat this costly system by reverse engineering the system of tones used to route long-distance calls, thus routing their own calls without the massive per-minute charges demanded by longdistance providers. These people were called Phreakers, and

they were, in effect, the first hackers.

Cut to the modern day, most domestic long-distance telephone calls are free relegating Phreakers to the annals of history. Hackers today thrive in digital environments, using tools and strategies that the average person has no idea about to get access to data. Why would they want data?

What Motivates Hackers?

Of course, the motivation varies from hacker to hacker, but there are only a few things they can come away with. They can come out of a successful hack with leverage over a computing system in multiple ways, they occasionally can steal money, but most of today's hackers are looking for data to mine. This is because the insatiable need (and abundance) of data can fetch a savvy hacker a pretty penny on the dark web.

No matter what their motivation is, to successfully hack a computing system, they need access. The network security tools that most businesses have in place, if properly updated,

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Improve Your Business' Communication with VoIP



Traditional telephone systems used to be necessary to getting work done in the office and communicating with clients, but in today's business world, with access to plentiful cloud-based options and the world's resources at your fingertips, you have other potential assets to pull from. By utilizing a Voice over IP phone system, you too can free yourself from the clutches of telephone companies and move your organization in the right direction.

Voice over IP utilizes a service that you already leverage to your advantage--the Internet--to cut costs and provide your business with the exact same services you would get if you worked with a telephone provider, minus all of the overpriced amenities that come with working with them. Furthermore, VoIP is completely customizable to suit the needs of any business, meaning that your organization's solution can adapt to its specific situations. We'll dig into some of the best features available for VoIP and why it's such a solid option for your organization.

Cost Savings

Telephone providers often lump services together with one-another, including services that your organization likely doesn't leverage. For example, you might get your telephone service from a local provider, but they also bundle together 100 cable channels and other services that your organization has no use for. You avoid this and save costs by using a service

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A BDR Can Limit Organizational Downtime



Businesses need to be extremely careful about how they protect their interests, but just in case

something unfortunate happens, you want to have measures in place to guarantee that your future is secure. To this end, data backup and disaster recovery is critical. We'll walk you through what you need to know about implementing data backup and disaster recovery, including the best way to make it happen.

First, you'll need to know the vocabulary associated with data backup and disaster recovery. There are two primary numbers you'll need to know for your disaster recovery strategy: the recovery point objective (RPO) and the recovery time objective (RTO).

Recovery Point Objective

How much data does your business use

in a given work week? You might be surprised. The recovery point objective is the absolute minimum amount of operational data you can accept for getting back to a decent operational state. Often times businesses will find themselves reeling from a data loss disaster, trying to recreate data that has been lost. Knowing where you're aiming to be can mitigate at least half the battle. Of course, it's up to you to determine which data is critical to the success of your organization.

Recovery Time Objective

How quickly can you restore your data and get back to work? This is the second half of data backup and disaster recovery. RTO is effectively the amount time you have before your business becomes insolvent. To best ward against this scenario, restoring the data to some sort of device, whether it's a backup server or a BDR unit, will allow your business to get back to business following an unpredictable disaster. The goal is to keep your RTO as low as possible, as any time your business isn't

operating even at a minimum capacity, it's risking failure.

The Best Components of BDR

The ideal BDR system optimizes your organization's backup solution by hyper focusing on the two numbers above, in addition to utilizing the three-two-one data backup rule. We recommend that your business has at least three types of data backups at any given time: two onpremise in the form of a physical restoration device and a digital one on your business' infrastructure, and one in the cloud for quick restoration when needed.

Directive can help you overcome the challenges presented by the dangers your organization can't predict. To learn more about preventative data backup and disaster recovery solutions like our BDR device, reach out to us at 607.433,2200.



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How to Properly Train Your Staff to Avoid Phishing Attacks

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is typically enough to keep hackers out of your network. This reality has spiked the popularity of social engineering attacks such as phishing. If they can't get into your network and infrastructure though software or through straight network hacks, they need to gain access through deception.

What Exactly is Phishing?

Phishing is exactly what the name implies. You bait a hook (of sorts) by way of messages directly to end users. This can be through any communications method available. Email phishing is the most prevalent for businesses, but phishing attempts through the telephone, social media accounts, and even instant messaging services have grown in popularity.

The phishing message will either lead you to a fake page that will collect

personal information, or in the form of an attachment that will download malware on a system. Once the malware is in, it will immediately find credentials and other noteworthy data, and in a couple mouse clicks, your company's network and infrastructure are exposed.

Some real nasty strains of malware (called ransomware) will encrypt your system files and then provide you with a message effectively holding your system's (or worse yet, your business') data for ransom. Failure to pay in the time provided will erase all the data and cause irreparable harm to your business.

Training Your Employees

Kaspersky Lab said that they detected 482.5 million phishing redirects in total in 2018, effectively doubling the amount found in 2017. That's a dubious

trend that doesn't seem to be altering course any time soon. As a result, training your employees in how phishing attacks are successful is imperative. How you go about successfully doing that, and how you keep them up to date on what threats are currently making problems for people can be difficult.

Some suggest that embedded training, that is the training done in the normal course of business, is completely ineffective at mitigating phishing attacks. While it is our position that any training is better than no training, we suggest that the best type of training for your employees isn't by looking to see how they would react, but proactive training. That is heightening their awareness to the threats that are out there...



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Improve Your Business' Communication with VoIP

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you already pay for--your Internet--for your phone service. It's a great way to consolidate costs and make managing your infrastructure easier.

Scalability to Suit Your Organization

How many times over the past few years have you had to update your office to accommodate new hires? Chances are that your business' office hardly resembles what it used to look like just a few short years ago, and the traditional telephone system you've used up to this point may have caused your organization to run a ton of cables and wires all over the place to accommodate your workforce. VoIP makes adding users as easy as creating an account and setting them up with headphones and a handset of some

sort, so it's the superior option for flexibility's sake.



Additional Features and Dynamic Services

Your business uses a lot of

communication solutions to get work done, and VoIP can give your business capabilities to leverage them all through a single solution. Beneficial services like instant messaging, voice chat, conference calling, and so much more are able to be integrated with most VoIP solutions, giving your business unprecedented control and customization of its services.

Directive can help your business implement communication solutions designed to augment productivity and optimize efficiency, all while cutting down on unnecessary costs. To learn more, reach out to us at 607.433.2200.



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It's Time to Upgrade Away from Windows 7



All good things must eventually come to an end, and that includes your business' technology solutions. The end of a

Windows operating system's reign on the market is always an eventful time, as you have businesses that take proactive measures to ensure they don't fall behind the times before the end of support date, and you have those who wait until the last minute and put their organizations at risk because of it.

In addition to several other Microsoft products, including Windows Server 2008 R2, Windows 7 will reach its end of support date on January 14th, 2020. You might be wondering why we're bringing this up so far ahead of time but trust us when we say that you could need either a couple of weeks or several months to make the jump to a supported operating system.

What Does End of Support Mean?

You might recall receiving messages on

your computer that you have Windows updates waiting to be deployed. In fact, they may have been pretty annoying in the past, disrupting your workflow and distracting you from getting things done. With the End of Support date approaching, you might soon find yourself not seeing any of these, which might seem like a benefit at first glance... Until you realize that your organization is not receiving security updates, which is a considerable issue to say the least.



Why is Not Having Support an Issue?

Security updates are critical to the success of your business, as without them you are essentially playing with fire. Who's to say that there aren't hackers out there who are developing threats against outdated operating systems? You never know what could happen, and if you know there is an opportunity to prevent this uncertainty, you want to take it every single time.

Think about it like this--if you have the chance to avoid a security threat by implementing proactive solutions, you would do it, right? The same can be said in this case. Once you're aware that your technology solutions will soon become obsolete, you take measures to upgrade away from your current OS, avoiding the rush to upgrade away from the solution in the first place, as well as eliminating the possibility that you'll be caught unaware in between the end of support and implementation of the more recent system.

Directive can help your business upgrade away from Windows 7 and any other solutions that are reaching their End of Support date in the near future. Remember, it's better to know how you will respond to these issues before they occur, rather than be scrambled and unable to implement solutions in time.

To learn more about how your business can be as prepared as possible for this event, reach out to us at 607.433.2200.



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Desktop Buyer's Guide 2019, Part V: Other Considerations



In parts one through four we talked about choosing

the right specifications for your desktop, depending on its role. We talked about selecting the right CPU, RAM, storage, and display options. This final post we hit a few other tips and ideas we came up with that didn't fit into the other posts.

What Brand is Best?

Honestly, it's going to depend on the day of the week and the exact specifications you want. Even then, when it comes to desktops, all computer manufacturers have access to the same parts. Dell, Asus, Lenovo, HP, Acer, and the countless other manufacturers out there will use the same basic components to make a desktop. Things don't start to make a difference until you get way up there on the higher-end of computing, like gaming rigs and video production, and then you have plenty of companies that specialize in that.

Where the brand does start to stand out is for laptops and all -in-one devices. This is where companies can differentiate themselves. For example, HP and Microsoft both have high-end graphic design all-inone desktops. Microsoft, HP, and Lenovo all have laptop options with pen inputs for artists. At this point we are talking about heavily specialized hardware that make these devices stand out, so we're leaving the realm of the desktop.

When it comes to specialized hardware, we suggest reading a lot of reviews, sampling the device at your local big box store, and if it is for your business, having a chat with the experts at Directive.

Full-Size Desktop vs Compact Desktop

This is in reference to the size of the desktop case itself. Full-size desktops tend to be easier to upgrade and maintain, and can sometimes cost less. Compact desktops, also known as slim desktops, might still have upgrade capabilities but they will be more limited.

The smaller design tends to be suitable for most office workstations, where gaming PCs and video production needs more space within the desktop for hardware and cooling.

Read Reviews and Benchmarks

There are plenty of sites that

are dedicated to reviewing specific models of desktops and other computer hardware. If you are looking at a specific desktop at the store, go online and see if it has any reviews, including user reviews. Higher-end systems will usually have more indepth reviews with benchmark scores, and you'll want to pay attention to that when spending more money.

Be Aware of Bloatware

This can be a big problem when buying pre-configured desktops from some brands. Computers will come pre-installed with software. Some of it will seem pretty helpful, like Microsoft Office trials or antivirus. Keep in mind that if you are buying a device for your office, you'll want to clean out the extra software, so you are only using your centralized antivirus and your licenses of Office, etc.

Getting Rid of Your Old PC?

First, you'll want to migrate the data and wipe the old drives thoroughly. It's best to leave that to professionals, unless you plan on destroying the drives. Even then, depending on your industry and the compliances you need...



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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.



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