

**This Issue:**

Failing Technology and Your Data

Tech Term: Exploring Network Attached Storage

“Due Diligence,” what does it mean to you?

What Is All This Talk About the Cloud?

Managed IT Services Provide Good Value for SMBs

What the Future Holds for Ransomware

Remote Work is a Huge Help, With the Right Preparation

**Failing Technology and Your Data**



The sad truth about computers is that when they inevitably break, you have to get them fixed; or, you have to order a new one. When PCs started to be utilized for mass productivity, however, businesses had to find a better way. It’s been years since the first managed services provider hung out their shingle, and over that relatively short time the managed services industry has grown to be a \$150 billion-a-year industry. The combination of IT becoming an important part of nearly every business resulted in the obvious demand for affordable IT support. This trend has seen many businesses cutting IT staff to make way for outsourced managed services, and all it provides. A problem that both businesses, and the MSPs that they hire, face is that computers eventually break.

For years now businesses have had to set aside capital to fix and replace their information systems; capital that could be better served invested elsewhere. Managed services tries to put a flat rate on every piece of IT you need managed and comes up with a consistent billable figure that not only allows a business to plan their operational IT budget more accurately, but allows them access to the expertise they may have lacked without a dedicated IT administrator. MSPs form of proactive maintenance can go a long way toward providing the kind of longevity that any organization would want from their hardware; but, while we can do a lot to protect your systems from failure, there’s no way to definitively know when a piece of hardware is going to fail.

When technology breaks, it leaves a hole in your functioning business that has a cost attached to it. If it's a switch or a router, or even a workstation that needs to be replaced, it's cheap enough. The cost to replace an in-house enterprise server, however, is between \$5,000 and \$20,000 dollars. Couple that with the fact that hardware prices that had been dropping for a decade have begun to rise, it suggests that it won't be getting cheaper to replace a physical server unit anytime soon. At Directive, we like to think of ourselves as solution providers, and today there are more options than ever for the housing, management, and maintenance of an organization’s computing infrastructure, including storage and applications.

When your server is about to fail, and you need a new one, buying a new one has to be a no-brainer. So how do you go about it? How do you get the data from the old hardware to the new hardware? What about networking? With so many factors to consider, relying on the experts is a must. If you have in-house technology professionals, they probably have this process worked out as to not cause the business a lot of additional problems. After all, a failed server carries with it enough anxiety without the additional fear that goes with not being able to do the work that is required to sustain profitability. But, if you don't have dedicated IT personnel on staff, the process might get a little overwhelming.

Let’s assume that (for this example) your organization’s file server is about to fail and you don’t have any contingency in place. What variables do you need to consider?

1. Are you backed up?
2. Do you have failover?
3. In-house or Cloud
4. Migration plan: RTO & RPO
5. Functionality and Security

**Tech Term: Exploring Network Attached Storage**



IT is filled with jargon and terms that are likely to bamboozle someone without hands-on

experience with the solutions that power a business. One such term is network attached storage, or its shorthand, NAS. Today, we’ll examine this tech term to learn more about it, and what influence - if any - it should have on your business...



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## "Due Diligence," what does it mean to you?



All small business owners can agree that sometimes running their enterprise is just downright difficult.

Managing the multitude of variables from payroll to employee morale to procurement to distribution to oversight is more than enough to keep an individual up at night. This is the life of the entrepreneur. For this reason it is crucial to have people on your staff adept at the responsibilities you've delegated to them. If, as the business owner, you are the only person that can properly achieve a successful resolution of these tasks, it may be time for you to stress the importance of operational diligence to your staff. You shouldn't have to, of course. Any employee worth his or her salt doesn't need to be told that the result of each project requires a careful and thorough approach.

As the boss, you will have to understand what each one of your employees does well and how to leverage those skills into higher degrees of productivity. One way that business owners can

improve their knowledge about how their subordinates handle roles in a project is by auditing projects after they've been completed. This allows an organization to measure the positive and negative aspects of each employee's role in the completion of a project. Acquiring this information is beneficial in multiple ways, none more so than it gives administrators an idea of which employees thrive in the role to which they've been assigned, and which ones need some work to get to the place where they can maximize their value to your organization. Many of a company's top workers, when trained and established, can present considerable value to the company in their time at work.

**dil-i-gence (dilajəns) -**  
**1. careful and persistent work or effort.**

### **Excel with Responsibility: Stress the Importance of Leadership**

When an employee makes a mistake that lingers and results in a negative outcome of a project, you can't help but wonder if that employee understood the importance of their role in the project. Every project has instances in which a small mistake in one seemingly

unimportant task could limit the effectiveness of that project. As a business owner, this process starts with you. It is important that you lead by example. You can tell people what to do until you are blue in the face, but unless you consider your actions as the model, your subordinates will likely see through these tyrannical orders and think it's okay to lapse on the directions given.

For this reason, optimistic leadership is one the most important variables of running point on any project. Hell, it may be the most important aspect of any project period. People who do the best work are the ones in the best state of mind. If you instill in your staff the importance of leadership, and give them the ability to lead (even if it's in the execution of the smallest task), you'll find that employee will have more invested in the correct and timely completion of the task assigned, the completion of the project as a whole, and the support of that project. An employee in a leadership role, whether that be making someone project manager or simply just having people...



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## Failing Technology and Your Data

*(Continued from page 1)*

### **Are You Backed Up?**

Has your organization put in place a backup function? Before we start in on a new server, every business should be utilizing a comprehensive backup and recovery system. Not only do you protect your data (one of the most lucrative assets your business has), but it also gives you failover options that many organizations might not have. Our Backup and Disaster Recovery system features incremental backups and the ability to use the device as a failover server, so your business isn't dealing with sustained downtime while you replace or repair your server.

### **Do You Have Failover?**

A failover system is a system in place

that allows you to protect your organization from system failure. By having a system to continue to access critical data, you can keep business moving while you replace or repair vital hardware. As stated above, our BDR gives temporary failover server capabilities to ensure the smoothest transition you can expect.

### **In-House or Cloud?**

The big decision many businesses have to make nowadays is where to host your server. There are pros and cons to moving your infrastructure to the cloud, as today a well-designed-and-implemented cloud server is often more beneficial depending on the needs of your organization. The average business has multiple servers, so when one is on

the verge of failure (or fails outright) and you are forced to use your failover platform as a temporary server, considering a move that will allow you to manage to get the server up and running again efficiently has to be a consideration. There are many cloud-hosted options to consider. Performing the cloud vs in-house determination. When your hardware gets old (or your software is), you have to start to consider your options. Let's look at some variables you should be cognizant of when deciding whether or not to move your computing infrastructure offsite...



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## What Is All This Talk About the Cloud?



Cloud computing is one of the best ways that your business can compete with larger enterprises.

Today, you can adopt the cloud and take advantage of countless services, but are you doing so yet? If not, we'll help walk you through some of the best ways that your organization can leverage the cloud.

Of course, the type of cloud you will need depends on several factors, including data control, maintenance responsibility, and the complexity of your operations as a whole. You will generally be choosing from a public, private, and hybrid cloud for your business' needs. With each of these comes new

benefits and challenges to overcome, however, so you'll want to consider all options before going all-in on a solution.

### Public Cloud

If your business has a limited budget, the public cloud may be an ideal solution for you. The public cloud allows users to take advantage of the cloud without investing in on-site cloud infrastructure. You can use all of the great parts of the cloud, including storage, access to cloud-based applications or services, and communication solutions. The public cloud offers a great starting point for businesses that want to utilize the flexible cost the cloud offers, and don't have the assets available to invest in anything more complicated. Some of the services provided through public cloud solutions include Google's G Suite and Microsoft Office 365. Yet, it's not all rainbows and sunshine for the public

cloud, as the lack of customization and control may deter some organizations.

### Private Cloud

Where the public cloud provides general catch-all solutions for businesses that don't want to manage or maintain their own infrastructures, the private cloud offers hosted or on-site solutions that need to be maintained by an IT department of some kind. Basically, you need to have the infrastructure to manage a cloud system, as well as a team that can provide maintenance for it (unless you have arranged to outsource this--more on that later). Private clouds are in high demand because they allow businesses to easily customize their solutions to suit their needs--particularly in regard to network...



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## Managed IT Services Provide Good Value for SMBs



Every business needs technology support. This statement is more true today than it has ever been before.

As your organization adds new technology to its infrastructure, it will naturally grow more complex and difficult to maintain. Thankfully, you don't necessarily have to go about this alone. By working with an outsourced third party, your business can take advantage of all kinds of great solutions for a fraction of the cost.

Depending on the way you go about technology maintenance, you can either wind up investing in your business's future or wasting vital capital. Traditional break-fix IT strategies take a responsive approach to IT maintenance. By this, we mean that you're reacting to issues as they crop up rather than preventing them outright. This is not the ideal way to approach IT maintenance,

as you will spend more time and resources addressing issues that could have been avoided in the first place. Instead of traditional break-fix, you should consider investing in a more preventative approach to technology maintenance.

If you want preventative solutions, your business is better off working with a managed IT service provider like Directive. Managed IT takes advantage of solutions that are designed to detect issues before they become costly problems. This affords your business ample time to resolve them, which mitigates downtime and the costs of replacing technology. Here are a couple of ways that managed IT can help your business save time and money:

- **Security:** Have you ever been the victim of an online security threat? Chances are that if you have, it's a situation that you'll never want to suffer from again. The issue with security is that it's costly and embarrassing to be hit by a hacking attack. You not only have to remove the

threats from your infrastructure, but you also can't work until it has been done. Furthermore, you might be subject to fine and other regulations regarding data privacy, which is just the icing on the cake. Preventing these issues with a firewall, antivirus, spam blocker, and content filter can make for a much more tolerable security situation.

- **Hardware issues:** A computer breaking down can be a considerable problem for your business. Hardware failure could mean a workstation or even a server unit breaking down, which could lead to data loss or a loss of operations. If you can use remote monitoring and management to provide maintenance as needed, you can keep the risk of a hardware failure at a low. Furthermore, you can detect signs of hardware failure early on if you're monitoring your network, which helps you avoid unexpected hardware breakdowns...



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<https://dti.io/services>

## What the Future Holds for Ransomware



Ransomware is a growing problem for businesses, being one of the most difficult threats to remove from an infrastructure. Not only is it easy to spread, but difficult to avoid as a whole. How can your organization prepare for this threat? It starts by being mindful of how ransomware is spread and how your employees react to it, both now and in the future.

Ransomware locks down files on your business' infrastructure. Through ransomware,

it's easy to cripple a business by limiting access to important information or files located on an infrastructure. If the user fails to pay the ransom, they risk losing their data for good. Even if they do pay the ransom, there's no guarantee that the hacker will give up the encryption key. The user is presented with a conundrum; pay up for a potential to get your data back or ignore the request and hope for the best.

Ransomware was primarily spread through the use of spam when it was first introduced to the online environment. Hackers would create

ransomware campaigns to spread it to as many users as possible, hoping that any number of them would choose to pay up rather than lose access to their precious files. As time went on, however, ransomware became used in a more targeted fashion. Rather than claim as many targets as possible, hackers instead chose to go after only those who were most likely to pay up with spear phishing tactics designed to fool even the most stalwart and mindful user. In many cases, these...



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Chris Chase  
Solutions Integrator

## Remote Work is a Huge Help, With the Right Preparation



There are plenty of benefits to allowing your employees to work from home, but that doesn't mean you can just implement it without consideration and planning. You have to have a system in place that allows you to enjoy the benefits of remote capabilities while mitigating some of its potential risks.

### The Situation

We'll explain. First and foremost, allowing your

employees to work from home on occasion is a fundamentally good strategy, as it means that circumstances have a reduced impact on their individual productivity, as well as the productivity of your organization as a whole. For example, let's say you have an employee who falls ill, and while they are still perfectly capable of doing their work, they would be a distraction in the office and could potentially get other employees sick as well. With remote capabilities, that employee could stay home and work from there, remaining

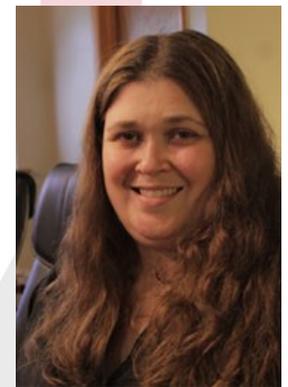
productive as they recover and avoiding the risk of infecting their coworkers. Of course, the ability to work remotely also allows an employee on the road to remain productive, and can serve as an invaluable part of a business continuity strategy. For our purposes today, however, the employee working from home provides the best example.

### The Problem

Despite the benefits to...



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