

A hand is shown typing on a laptop keyboard. The laptop screen displays a large, light blue cloud icon on a dark blue background. The time 12:03 is visible in the top left corner of the screen. The background is a blurred office setting.

8 CRITICAL QUESTIONS YOU **MUST ASK BEFORE MOVING YOUR DATA TO THE CLOUD**

PREPARED BY



Meeting Tree
COMPUTER



CLOUD COMPUTING: A SIMPLE STORY ON WHY

Picture this: You have an important project due tomorrow, but it's already close to 6 pm and your family is at home waiting for you so you can have dinner together. You still have work to do so you decide to take things home.

This being said you can't very well take your desktop computer home with you. As a quick solution, you decide to spend the next 10 minutes emailing documents to your personal email. It's not entirely secure, but your hands are tied.

You arrive at home, have dinner with your family, and get to work. At this point, it doesn't take long for things to fall apart. Your version of Microsoft Office is actually expired - which means you have to spend the next 45 minutes finding, purchasing, and downloading it.

You hop on your personal email and start downloading all the files you sent while you were at the office. But you quickly realize that you forgot to send the actual project and stats itself and without those CRM stats, things are disorganized and incomplete.

By the time you decide to give up and call it quits, it's close to midnight and your project is a hodgepodge of random ideas and subpar thoughts. Knowing that you still have a ton of work to complete you set your alarm clock for 5 am...

WHAT IS CLOUD COMPUTING

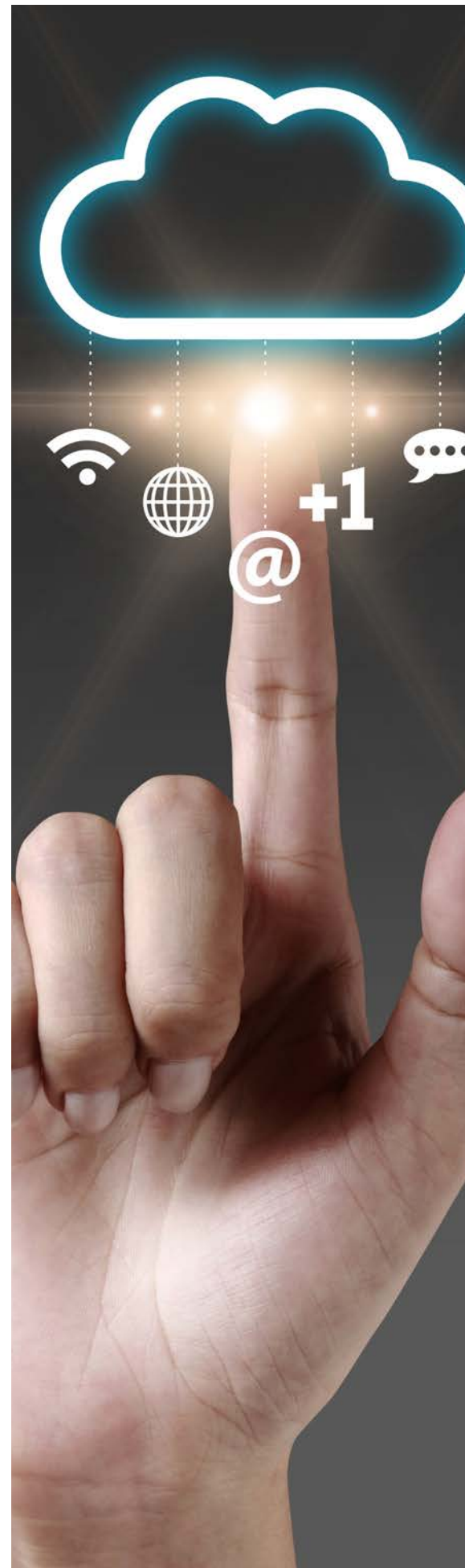
With the cloud, this isn't how things would go down.

Cloud computing is the on-demand delivery of IT resources over the Internet with pay-as-you-go pricing. Instead of buying, owning, and maintaining physical data centers and servers, you can access technology services, such as computing power, storage, and databases, on an as-needed basis from a cloud provider like Google and Amazon Web Services (AWS).

Although cloud computing has only picked up major traction in the last two decades or so, the idea has existed since the 1960s. The noted computer scientist John McCarthy introduced the concept when he envisioned technology that would allow computing to be sold as a utility like electricity or water. He suggested that each subscriber would only need to pay for the capacity they actually used and that some users could offer services to other users.

While McCarthy's vision looked like a pipe dream at the time, he was describing a phenomenon that's taken the digital world by storm.

Today, organizations of every type, size, and industry are using the cloud for a wide variety of use cases, such as data backup, disaster recovery, email, virtual desktops, software development, and testing, big data analytics, and customer-facing web applications. For example, healthcare companies are using the cloud to develop more personalized treatments for patients. Financial services companies are using the cloud to power real-time fraud detection and prevention. And video game makers are using the cloud to deliver online games to millions of players around the world.



Pros and Cons of Moving To The Cloud

As you read this section, keep in mind there is no “perfect” solution. All options – be it an in-house, on-premise server, or a cloud solution – have upsides and downsides that need to be evaluated on a case-by-case scenario. (Warning: Do NOT let a cloud expert tell you there is only “one way” of doing something!)

Most businesses end up with a hybrid solution where some of your applications and functionality are in the cloud and some are still hosted and maintained from an in-house server. We’ll discuss more of this in a later section; however, here are the general pros and cons of cloud computing:

Pros Of Cloud Computing:

Lowered IT costs. This is probably the single most compelling reason why companies choose to move their network (all or in part) to the cloud. Not only do you save money on software licenses, but on hardware (servers and workstations) as well as on IT support and upgrades. In fact, we save our clients an average of 30% to 40% when we move some or part of their network functionality to the cloud. So, if you hate constantly writing cash-flow-draining checks for IT upgrades, you’ll really want to look into cloud computing.

The ability to access your desktop and/or applications from anywhere and any device. If you travel a lot, have remote workers, or prefer to use an iPad while traveling and a laptop at your house, cloud computing will give you the ability to work from any of these devices.

Disaster recovery and backup are automated. The server in your office is extremely vulnerable to a number of threats, including viruses, human error, hardware failure, software corruption, and, of course, physical damage due to a fire, flood, or other natural disasters. If your server were in the cloud and (God forbid) your office was reduced to a pile of rubble, you could purchase a new laptop and be back up and running within the same day. This would NOT be the case if you had a traditional network and were using tape drives, CDs, USB drives, or other physical storage devices to back up your system.

Plus, like a public utility, cloud platforms are far more robust and secure than your average business network because they can utilize economies of scale to invest heavily into security, redundancy, and failover systems, making them far less likely to go down.

It’s faster, cheaper and easier to set up new employees. If you have a seasonal workforce or a lot of turnover, cloud computing will not only lower your costs of setting up new accounts, but it will make it infinitely faster.

You use it without having to “own” it.

More specifically, you don't own the responsibility of having to install, update and maintain the infrastructure. Think of it as similar to living in a condo where someone else takes care of the building maintenance, repairing the roof, and mowing the lawn, but you still have the only key to your section of the building and use of all the facilities. This is particularly attractive for companies that are new or expanding but don't want the heavy outlay of cash for purchasing and supporting an expensive computer network.

It's a “greener” technology that will save on power and your electric bill.

For some smaller companies, the power savings will be too small to measure. However, for larger companies with multiple servers that are cooling a hot server room and keep their servers running 24/7/365, the savings are considerable.

Cons Of Cloud Computing:

The Internet going down. While you can mitigate this risk by using a commercial-grade Internet connection and maintaining a second backup connection, there is a chance you'll lose Internet connectivity, making it impossible to work.

Data security. Many people don't feel comfortable having their data in some off-site location. This is a valid concern and before you choose any cloud provider

you need to find out more information about where they are storing your data, how it's encrypted, who has access and how you can get it back. You'll find more information on this under “What To Look For When Hiring A Cloud Integrator” later on in this document.

Certain line-of-business applications won't work in the cloud. For example, some email or browser plug-ins require a local database to function properly. This is becoming less of an issue as developers are realizing the benefits of leveraging cloud technologies.

Compliance Issues. There are a number of laws and regulations, such as Gramm-Leach-Bliley, Sarbanes-Oxley, and HIPAA, that require companies to control and protect their data and certify that they have knowledge and control over who can access the data, who sees it, and how and where it is stored. In a public cloud environment, this can be a problem. Many cloud providers won't tell you specifically where your data is stored.

Most cloud providers have SAS 70 certifications, which require them to be able to describe exactly what is happening in their environment, how and where the data comes in, what the provider does with it and what controls are in place over the access to and processing of the data; but as the business owner, it's YOUR neck on the line if the data is compromised, so it's important that you ask for some type of validation that they are meeting the various compliance regulations on an ongoing basis

DIFFERENT TYPES OF CLOUD SOLUTIONS EXPLAINED:



Pure Cloud: This is where all your applications and data are put on the other side of the firewall (in the cloud) and accessed through various devices (laptops, desktops, iPads, phones) via the Internet.



Public Cloud: A public cloud is a service that anyone can tap into with a network connection and a credit card. Companies, such as Amazon and Google, are known for their public clouds. This type of cloud is known for providing large storage space. Business teams will typically use a public cloud for collaborative projects or software development. Many platforms will also let users pay for more capacity whenever they need it, allowing for scalability.



Private cloud: Similar to public cloud storage, private clouds allow users to access, use, and cache data in the cloud remotely. However, private cloud infrastructure is usually protected behind a firewall, which is a security system that tracks and controls network traffic. This means only authorized people can use these computing resources. Companies that have strict regulatory standards will prefer private clouds to protect their information and data.



Hybrid Cloud: Although “pure” cloud computing has valid applications, for many it’s downright scary. And in some cases, it is NOT the smartest move, due to compliance issues, security restrictions, speed, and performance. A hybrid cloud enables you to put certain pieces of existing IT infrastructure (say, storage and e-mail) in the cloud, and the remainder of the IT infrastructure stays on-premises. This gives you the ability to enjoy the cost savings and benefits of cloud computing where it makes the most sense without risking your entire environment.



Single Point Solutions: Another option would be to simply put certain applications, like SharePoint or Microsoft Exchange, in the cloud while keeping everything else on-site. Since e-mail is usually a critical application that everyone needs and wants access to on the road and on various devices (iPad, smartphone, etc.), often this is a great way to get advanced features of Microsoft Exchange without the cost of installing and supporting your own in-house Exchange server.

MIGRATION GOTCHA'S

What You Need To Know About Transitioning To A Cloud-Based Network

When done right, a migration to Office 365 or another cloud solution should be like any other migration. There's planning that needs to be done, prerequisites that have to be determined, and the inevitable "quirks" that need to be ironed out once you make the move.

Every company has its own unique environment, so it's practically impossible to try and plan for every potential pitfall; however, here are some BIG things you want to ask your IT consultant about BEFORE making the leap.

Downtime. Some organizations cannot afford ANY downtime, while others can do without their network for a day or two. Make sure you communicate YOUR specific needs regarding downtime and make sure your IT provider has a solid plan to prevent extended downtime.

Painfully Slow Performance. Ask your IT consultant if there's any way you can run your network in a test environment before making the full migration. Imagine how frustrated you would be if you migrate your network and discover everything is running so slow you can barely work! Again, every environment is slightly different, so it's best to test before you transition.

3rd-Party Applications. If your organization has plug-ins to Exchange for faxing, voice mail, or integration into another application, make sure you test to see if it will still work in the new environment.





FAQS ABOUT SECURITY, WHERE YOUR DATA IS HELD AND INTERNET CONNECTIVITY:

Question: What if my Internet connection goes down? How will we be able to work?

Answer: While this is a valid concern, we recommend network routers that support multiple internet connections. This can serve multiple purposes depending on the organization. One possibility is to use one internet connection for data traffic and the second for VoIP traffic. In the event of an internet failure, the stable connection will automatically failover all traffic until the internet issue is resolved.

Question: What happens if the Internet slows to the point where it's difficult to work productively?

Answer: We resolve this by keeping a synchronized copy of your data on your on-site server as well as in the cloud. Here's how this works: Microsoft offers a feature with Windows called "DFS," which stands for Distributed File Systems.

This technology synchronizes documents between cloud servers and local servers in your office.

So instead of getting rid of your old server, we keep it on-site and maintain an up-to-date synched copy of your files, folders, and documents on it. If the Internet goes down or slows to a grind, you simply open a generic folder on your PC and the system will automatically know to pull the documents from the fastest location (be it the cloud server or the local one). Once a file is modified, it syncs it in seconds so you don't have to worry about having multiple versions of the same document. Using this process, you get the benefits of the cloud with a backup solution to keep you up and running during slow periods or complete Internet outages.

FAQS ABOUT SECURITY, WHERE YOUR DATA IS HELD AND INTERNET CONNECTIVITY:

Question: What about security? Isn't there a big risk of someone accessing my data if it's in the cloud?

Answer: In many cases, cloud computing is a MORE secure way of accessing and storing data. Just because your server is on-site doesn't make it more secure; in fact, most small to medium businesses can't justify the cost of securing their network the way a cloud provider can. And most security breaches occur due to human error – one of your employees downloads a file that contains a virus, they don't use secure passwords or they simply e-mail confidential information out to people who shouldn't see it. Other security breaches occur in on-site networks because the company didn't properly maintain their own in-house network with security updates, software patches and up-to-date antivirus software. That's a FAR more common way networks get compromised versus a cloud provider getting hacked.

Question: What if YOU go out of business? How do I get my data back?

Answer: We give every client network documentation that clearly outlines where their data is and how they could get it back in the event of an emergency. This includes emergency contact numbers, detailed information on how to access your data and infrastructure without needing our assistance (although our plan is to always be there to support you), a copy of our insurance policy and information regarding your backups and licensing.

Question: Do I have to purchase new hardware (servers, workstations) to move to the cloud?

Answer: No! That's one of the selling points of cloud computing. It allows you to use older workstations, laptops and servers because the computing power is in the cloud. Not only does that allow you to keep and use hardware longer, but it allows you to buy cheaper workstations and laptops because you don't need the expensive computing power required in the past.

Human error is a FAR more common cause of security breaches than a cloud provider getting hacked

WHAT TO LOOK FOR WHEN HIRING AN IT CONSULTANT TO MOVE YOUR NETWORK TO THE CLOUD:

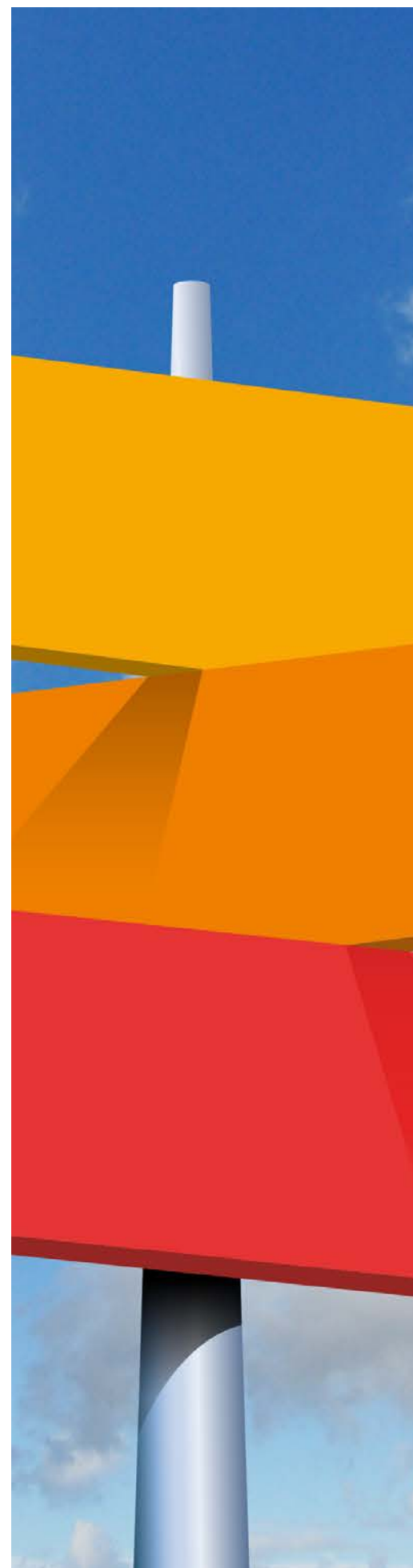
A cloud integrator is a fancy name for an IT consultant who helps you set up and integrate the various software and solutions into a cloud service specifically for your business. But buyer beware! The cloud is a relatively new technology and you don't want just anyone set this up.

Unfortunately, as I've mentioned before, the computer repair and consulting industry (along with many others) has its own share of incompetent or unethical people who will try to take advantage of trusting business owners who simply do not have the ability to determine whether or not they know what they are doing. Sometimes this is out of greed for your money; more often it's simply because they don't have the skills and competency to do the job right but won't tell you that upfront because they want to make the sale.

From misleading information, unqualified technicians, and poor management, to terrible customer service, we've seen it all, and we know they exist in abundance because we have had a number of customers come to us to clean up the disasters they have caused.

Automotive repair shops, electricians, plumbers, lawyers, realtors, dentists, doctors, accountants, etc., are heavily regulated to protect the consumer from receiving substandard work or getting ripped off. However, the computer industry is still highly unregulated and there are few laws in existence to protect the consumer – which is why it's so important for you to really research the company or person you are considering, to make sure they have the experience to set up, migrate and support your network to the cloud.

Anyone who can hang out a shingle can promote themselves as a cloud expert. Even if they are honestly trying to do a good job for you, their inexperience can cost you dearly in your network's speed and performance or in lost or corrupt data files. To that end, here are 8 questions you should ask your IT person before letting them migrate your network to the cloud:





8 CRITICAL QUESTIONS TO ASK BEFORE MOVING YOUR NETWORK TO THE CLOUD

Question: How many clients have you provided cloud services for to date and can you provide references?

Answer: You don't want someone practicing on your network. At a minimum, make sure they have implemented several solutions to different customers. Not every business is the same and neither should the cloud solutions be.

Question: How quickly do they guarantee to have a technician working on an outage or other problem?

Answer: Anyone you pay to support your network should give you a written SLA (service level agreement) that outlines exactly how IT issues get resolved and in what time frame. I would also request that they reveal what their average resolution time has been with current clients over the last three to six months.

They should also answer their phones live from 8:00 a.m. to 5:00 p.m. and provide you with an emergency after-hours number you may call if a problem arises, including on weekends.

If you cannot access your network because the Internet is down or due to some other problem, you can't be waiting around for hours for someone to call you back OR (more importantly) start working on resolving the issue.



Make sure you get this in writing; often cheaper or less experienced consultants won't have this or will try and convince you it's not important or that they can't do this. Don't buy that excuse! They are in the business of providing IT support, so they should have some guarantees or standards around this they share with you.

Question: What's your plan for transitioning our network to the cloud to minimize problems and downtime?

Answer: Make sure they run a simultaneous cloud environment during the transition and don't "turn off" the old network until everyone is 100% confident that everything has been transitioned and is working effortlessly. You don't want someone to switch overnight without setting up a test environment first.

Question: Where will your data be stored?

Answer: You should receive full documentation about where your data is, how it's being secured and backed up and how you could get access to it if necessary WITHOUT going through your provider. Essentially, you don't want your cloud provider to be able to hold your data (and your company) hostage.

Question: How will your data be secured and backed up?

Answer: If they tell you that your data will be stored in their own co-lo in the back of their office, what happens if THEY get destroyed by a fire, flood or other disaster? What are they doing to secure the office and access? Are they backing it up somewhere else? Make sure they have a failover plan in place to ensure continuous service in the event that their location goes down.



If they are building on another platform, you still want to find out where your data is and how it's being backed up.

Question: Do they have adequate errors-and-omissions insurance as well as workers' compensation insurance to protect YOU?

Answer: Here's something to consider: if THEY cause a problem with your network that causes you to be down for hours or days or to lose data, who's responsible? Here's another question to consider: if one of their technicians gets hurt at your office, who's paying? In this litigious society we live in, you better make darn sure that whomever you hire is adequately insured with both errors-and-omissions insurance AND workers' compensation – and don't be shy about asking to see their latest insurance policies!

Question: Is their help desk US-based or outsourced to an overseas company or third party?

Answer: We provide our own in-house help desk and make sure the folks helping you are friendly and helpful. We consider this one of the most important aspects of customer service, plus we feel it's an important step in keeping your data secure.

Question: When something goes wrong with your Internet service, phone systems, printers, or other IT services, do they own the problem, or do they say, "That's not our problem to fix"?

Answer: We feel WE should own the problem for our clients so they don't have to try and resolve any of these issues on their own – that's just plain old good service and something many computer guys won't do.

ARE YOU READY?

The pros and cons of cloud computing lean much more heavily toward benefits than disadvantages. Cloud is a managed service that can help companies of any size save time and improve their bottom line. But not every provider can offer the same level of benefit.

Meeting Tree Computer has been supporting local Hudson Valley businesses for more than 30 years. At our core, we are a caring customer service company. We just happen to be really good at IT. Our mission is to provide customized solutions that drive effectiveness, create efficiencies, and drive revenue growth. In short, we want to make a positive difference in the lives of our clients.

If you would like to know more about our Cloud Solutions:

Go online to:

<http://www.meetingtreecomputer.com/contact/>

Call us direct at 845-237-2117

E-mail us at info@meetingtreecomputer.com

Or schedule a 15-minute introductory meeting:

<https://calendly.com/meetingtreecomputer>

We hope that you become our client, but if not, that's okay! This discovery meeting comes with absolutely NO strings attached.

You have our guarantee that absolutely no high-pressure sales tactics will be used at any point during our engagement.

We simply want this to be a delightful, positive and above all informative experience for you!

