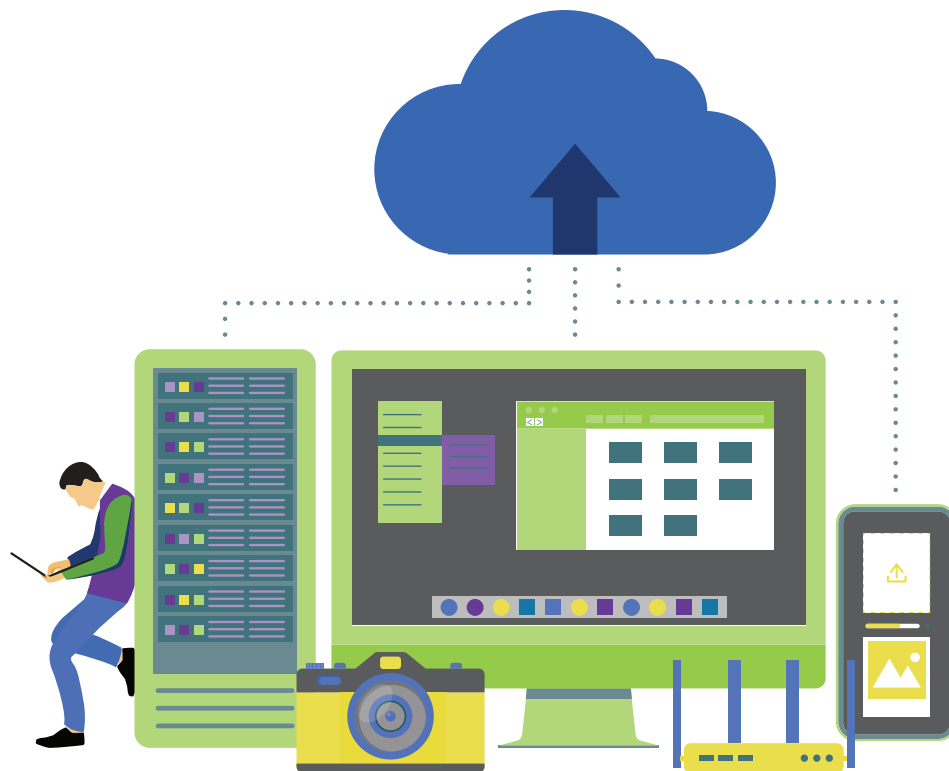# INTRO TO
# CLOUD
# COMPUTING

## "5 CRITICAL FACTS EVERY BUSINESS OWNER MUST KNOW BEFORE MOVING THEIR NETWORK TO THE CLOUD"

**DISCOVER WHAT MOST IT CONSULTANTS DON'T KNOW OR WON'T TELL YOU ABOUT MOVING YOUR COMPANY'S NETWORK TO THE CLOUD**

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ANSWERS TO THE

# TOP 5 QUESTIONS

BUSINESS OWNERS HAVE
ABOUT CLOUD COMPUTING

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**Provided as an educational resource by:**

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# FOREWORD

Undoubtedly you've heard all the commotion around cloud computing and how it's the "next big thing." **Yet, despite all the hype, no one really seems to understand what cloud computing is or how it can help your business.**

That's why we wanted to set the record straight and provide business owners and executives with a simple, easy to read guide that explains what cloud computing is, how it can (possibly) help their business and, if it can help, what they need to know in order to make good decisions about choosing a cloud vendor.

Why "possibly?" Because cloud computing is NOT a good fit for every company; and if you don't get all the facts or fully understand the pros and cons, you can end up making some VERY poor and expensive decisions that you'll deeply regret later.

That said, for some clients, cloud can actually lower their IT costs by 9% to 43% greatly improve the ability for remote workers to connect and work, simplify their entire IT infrastructure and genuinely solve a number of technology problems that business owners have been trying to work around for years.

So can cloud computing help you? By the end of this book you'll know, or at least have a much better understanding. I'm going to answer the top 5 questions that I've heard just about every savvy business owner ask about cloud computing. I'll also provide an overview of what exactly cloud computing is and how it can possibly benefit your business in addition to how to choose a Cloud Service Provider.

# WHAT IS CLOUD COMPUTING?

Wikipedia defines cloud computing as "the use and access of multiple server-based computational resources via a digital network (WAN, Internet connection using the World Wide Web, etc.)."

**But what the heck does *that* mean?**

The easiest way to not only understand what cloud computing is but also gain insight into why it's gaining in popularity is to compare it to the evolution of public utilities. For example, let's look at the evolution of electricity.

Back in the industrial age, factories had to produce their own power in order to run machines that produced the hard goods they manufactured. Be it textiles or railroad spikes, using machines gave these companies enormous competitive advantages by producing more goods with fewer workers and in less time. For many years, the production of power was every bit as important to their company's success as the skill of their workers and quality of their products.

**Unfortunately, this put factories into TWO businesses:** the business of producing their goods and the business of producing power. Then the concept of delivering power (electricity) as a utility was introduced by Thomas Edison when he developed a commercial-grade replacement for gas lighting and heating using centrally generated and distributed electricity. From there, as they say, the rest was history.

The concept of electric current being generated in central power plants and delivered to factories as a utility caught on fast. This meant manufacturers no long had to be in the business of producing their own power. **In fact, in a very short period of time, it became a competitive necessity for factories to take advantage of the lower cost option being offered by public utilities.** Almost overnight, thousands of steam engines and electric generators were rendered obsolete and left to rust next to the factories they used to power.

What made this possible was a series of inventions and scientific breakthroughs – but what drove the demand was pure economics. Utility companies were able to leverage economies of scale that single manufacturing plants simply couldn't match in output or in price. In fact, the price of power dropped so significantly that it quickly became affordable for not only factories but also for every single household in the country.

Today, we are in a similar transformation following a similar course. The only difference is that instead of cheap and plentiful electricity, advancements in technology and Internet connectivity are driving down the costs of computing power. With cloud computing, businesses can pay for "computing power" like a utility without having the exorbitant costs of installing, hosting and supporting it.

In fact, you are probably already experiencing the benefits of cloud computing in some way but hadn't realized it. Below are a number of clouds computing applications, also called SaaS or "software as a service," that you might be using:

- Gmail, Hotmail or other free e-mail accounts
- Facebook
- NetSuite, Salesforce
- Constant Contact, Exact Target, Aweber or other e-mail broadcasting services
- Zoomerang, SurveyMonkey and other survey tools
- LinkedIn
- Twitter
- All things Google (search, AdWords, maps, etc.)

If you think about it, almost every single application you use today can be (or already is) being put "in the cloud" where you can access it and pay for it via your browser for a monthly fee or utility pricing. You don't purchase and install software but instead access it via an Internet browser.

# ANSWERS TO THE TOP 5 QUESTIONS BUSINESS OWNERS HAVE ABOUT CLOUD COMPUTING

**Question #1:** What if my Internet connection goes down for an extended period of time? What happens if the Internet slows to the point where it's difficult to work productively?

**Our Answer:** While this is a valid concern, we overcome it in the following way for our clients in the cloud. Our recommendations for business continuity in case of internet failure is

A) Redundant Internet Service Providers, by utilizing two different providers if one of them goes down you can fail over to the other connection automatically.

B) Mobile-based Hotspots – you can turn your smartphone or other wireless device into an internet hotspot. Now depending on your mobile coverage plan, you can expect to pay an addition fee for this service.

C) Tethering – If you have a smartphone you can connect to the internet by tethering your phone to your computer via a cable.

Realistically the internet is just like any other utility you utilize, from time to time it will go down, just like phone systems and electricity can go out for a period of time. However unlikely it is for this to occur on an extended basis, it is a possibility. Weather conditions, infrastructure failure and cut cables can occur. We recommend that if you are experiencing two or more extended disruptions per year you should reconsider using that provider.

**Question #2:** What about security? Isn't there a big risk of someone accessing my data if it's in the cloud?

**Our Answer:** In many cases, cloud computing is a MORE secure way of accessing and storing data. Just because your server is onsite 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 anti-virus software. That's a FAR more common way networks get compromised versus a cloud provider getting hacked. We use a standard SSL Encryption which is the same encryption banks use for online banking. We send all data through a firewall and secondary physical security device for added protection.

**Question #3:** What if YOU go out of business? How do I get my data back?

**Our Answer:** We allow you to transfer data back and forth between the cloud and your local computer. With that technology in place, you can feel secure that not only do we back up your data but that you can maintain a backup of your data as well. In fact, you should never hire ANY IT professional that will not provide you with the ability to maintain a copy of your data.

**Question #4:** Do I have to purchase new hardware (servers, workstations) to move to the cloud?

**Our Answer:** No! That's one of the greatest benefits 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. The best cloud solutions should support the following devices. Desktops – Windows, Mac OS X, Linux, and Chromebook. For Mobile Devices – Android, Blackberry, Blackberry Playbook, iPhone, iPad, and Windows Mobile. Automatic updates should be included to ensure that you always have the latest features. When searching for a cloud solution be sure to find a provider that provides support for your devices.

**Question #5:** How can the Cloud impact my productivity and the productivity of my employees?

**Our Answer:** Work, personal business and family life rarely remain within separate, clearly defined times of day, especially for Small Business Owners. Sometimes it's a matter of finishing a project from home in the evening, approving a document while on vacation, or checking in on the business from the road. Conversely, life circumstances can force you to wait at home for the cable guy, or a blizzard can strand you at the end of a vacation. If employees are unable to adapt to these scenarios and use whatever device they may have at hand to keep working, both their productivity and their job satisfaction suffer.

Cloud Computing gives workers the flexibility to balance work and life because they can work from any device—a Mac at home, a tablet on a Wi-Fi enabled airplane, or even an outdated PC at a relative's house. Any web-enabled device can access a cloud desktop, giving you any device, anywhere access. An employee who needs to stay home to meet a service technician can simply work there for the day, just as productively as they would at the office—if not more so. An unexpected snow day or childhood illness doesn't mean the worker has to take the day off. At the same time, when work needs to be done after hours or on weekends, an employee can deal with it from the comfort of their own home, on their own device, then resume their personal time without the disruption of a trip back to the office.

The real difference in quality of life this makes possible can be seen in the experience of one cloud desktop user, an attorney at a leading international law firm. While at his son's soccer game, he received an urgent request for information from an important client. Instead of having to rush back to the office, he simply accessed his cloud desktop securely via his iPhone®, copied the information from his firm's document.

# CHOOSING A CLOUD SERVICE PROVIDER

Can the Cloud help you? The purpose in providing this information is to help you make an informed decision and avoid getting burned by the many incompetent firms offering these services. Before signing up for with any Cloud Service Provider, be sure the solutions they are recommending make sense for your business needs now and in the future. Cloud computing might not be a good fit for your particular circumstances. We recommend that you only hire a Cloud Service Provider who is willing to provide you with a Free No Obligation Cloud Readiness Assessment.

A reputable Cloud Service Provider will be willing to conduct a Cloud Readiness Assessment for FREE. Conducting this Assessment will enable the prospective provider to perform a small service to you and give you a risk-free way of determining whether or not they are right company for you and if Cloud is right for you - **without risking your money.**

# WHAT'S A CLOUD READINESS ASSESSMENT?

A Cloud Readiness Assessment and cost analysis is a thorough assessment that includes:

**1. Cost Analysis and Inventory:** The first step is to look at what your current network consists of in hardware, licenses, data, and applications. Next, the provider should compile an IT cost assessment to reveal what you spend in total on IT, including Internet connectivity, support and other fees. Most business owners have never really looked at their entire IT costs this way, and often this report alone is an eye-opener. Why is this important? Because the goal is to find ways that you can significantly lower costs while simplifying and improving your workflow.

**2. Health Check:** An audit of your entire network to look for potential problems, security loopholes, spyware and other hidden problems that you might not know about. It is very common to find faulty backups, out-of-date anti-virus software, faulty firewalls and missing security patches that, if left unaddressed could end up costing you MORE in new hardware, support, and business downtime and data loss.

**3. Cloud Readiness:** After all of the above is looked at, the next step is to look at how you and your employees work and share information and see what applications or processes can safely move to the cloud to improve ease of use and, of course, lower costs.

When complete, you should be given a Cloud Action Plan that shows you how the provider can save you money and resolve a number of work-arounds and problems you may have been experiencing to date. Conducting this type of assessment will give you some good information on saving money and the security and health of your computer network.

# STILL NOT SURE?

Helping businesses make the right business and technology decisions is our specialty. So of course, we are always available as a resource for a second opinion or quick question, so please feel free to contact my office at 847-906-5005 if we can clarify any points made in this guide or answer any questions you have.

# ABOUT THE AUTHOR
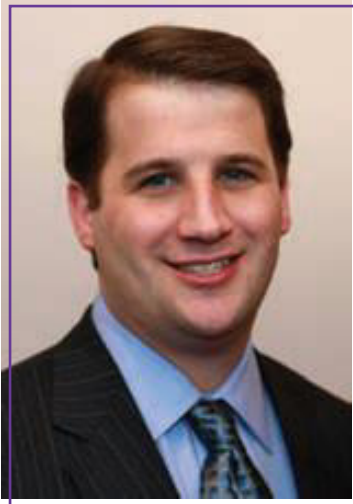
President and CTO of Hodgson Consulting & Solutions, Robert Zehnder has over 14 years of experience in Information Technology. Hodgson Consulting & Solutions providing On-Demand technology for small to midsized businesses nationwide.

Robert currently has over 20+ Industry Certifications crossing over several technology disciplines including logical and physical network structure management. Robert has been guest speaker at Olivet University, as well as assisted Citrix Systems in writing multiple exams, including Certified Citrix Administrator, XenApp and Excalibur exams. He has served in various technical support roles for both large and small environments and is highly recognized for his inherit ability to troubleshoot and deliver rapid solutions to complex technical problems.

Robert's in-depth knowledge of Project Management has produced many satisfied clients around the globe. He has implemented a global Microsoft Enterprise Server Solution for a European based company which includes systems throughout Asia Pacific, Europe and North America. He continues to design and implement internal network infrastructures and multi-layer security solutions for companies throughout North America.

To book Robert to speak at your next event or a seminar for your company or request our services, please contact him at
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