

# CLEARING UP CLOUD CONFUSION



**YOUR GUIDE**  
to Leveraging the Cloud



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Approximately 94% of all SMBs say they have already, are in the process of, or are considering adopting cloud solutions within the next twelve months. For most, the discussion around the cloud has moved from “if” to “when” and “how.”

Despite a glut of information about the cloud, misunderstandings remain. This ebook will demystify the concept of the cloud, and demonstrate how to leverage the cloud effectively for your business, avoid common mistakes, and sidestep hidden costs.

## Defogging the Cloud

To gain a better understanding of what the cloud is exactly, consider an analogy with a Wal-Mart parking lot. Wal-Mart operates over 11,000 stores in 27 countries, each with a massive parking lot that is rarely—if ever—even halfway full. Ever wondered why on earth Wal-Mart spends all the money on real estate, development, construction, and maintenance of these lots?

The answer, in short, is Christmas. For a couple of weeks every winter, many of these parking lots will finally be filled at, or near, their full capacity.

What if Wal-Mart could scale parking lots up and down so that each was only as large as the need at any time? They would save tens of millions of dollars. They could build smaller lots for most of the year, and then for the Christmas shopping season scale the parking lots up to meet demand and then shrink them back down again in the new year.

While we can't do this with parking lots (at least not yet!), thanks to the cloud, we can do it with computing power. Wal-Mart's parking lots are like an on-site data center: They contain all the computing (or parking) power Wal-Mart could ever need with a healthy buffer in case of unexpected volume. They represent an enormous capital investment that can't be adjusted without additional major expenditure.

The cloud is like a scalable computing “parking lot” that can be utilized on an as-needed basis. Excess capacity can be re-allocated elsewhere when need decreases. Thanks to cloud computing, as your business grows and experiences peaks and valleys, your computer and storage space can expand and contract to meet your precise needs.

## Op Ex Benefits of Cloud for SMB

In addition to flexibility, one of the greatest financial benefits of the cloud is moving technology costs from cap ex to op ex. Before the cloud, businesses had to make large capital purchases of hardware every time they needed more computing power and every time current systems failed. Moving to op ex provides significant additional benefits for SMBs:

- **Lower commitment.** Payments on a capital good such as a server are one in a series until they are fully paid off, whether you continue to use the server or not. Cloud and IaaS hosting means you pay for only what you're currently using.
- **Cost containment.** With cap ex hardware investments come maintenance, repair, and upgrade costs, which can vary widely from month to month. In the cloud model, technology becomes a flat monthly expense, enabling you to set accurate budgets.
- **Reduced hidden costs.** An on-site data center comes with cooling, power maintenance, networking, and IT support costs that are difficult to calculate or even to fully inventory. With a quality cloud option, your costs are contained in a transparent monthly fee. But beware: Not all cloud solutions are created equal. Be sure to review the "avoiding hidden costs" section of this guide to ensure your cloud solution truly delivers on this benefit.
- **Increasing cash on hand.** Cash flow is king for most small businesses. Keeping more cash on hand allows more security and financial breathing room, as well as opportunity to invest in tools, resources, and the core competencies of the business.
- **No cost of capital.** Anyone in business knows that capital doesn't come cheap. If you're borrowing the capital to purchase servers, you're paying interest on top of the cost of the server. If you have the money to spend, there's an opportunity cost to not investing it elsewhere.



## How The Cloud Impacts The Role of IT

Let's not avoid the truth: Switching to cloud solutions significantly changes the role of IT departments in businesses of all sizes. Fortunately for most IT departments, the change is usually for the better.

Rather than purchasing, installing, and supporting capital IT assets for the company, the role of IT becomes managing the company's cloud-based applications and data, a considerably less time-intensive activity. This frees IT professionals to focus on providing forward-thinking value to the organization. Here are some other ways switching to the cloud transforms the role of IT:

### Ending The Black Hole of Spending

IT can be a black box where unintelligible jargon comes out one side and ever-increasing mounds of cash go in the other. Many companies view IT as a "black hole" of spending, which demands capital for new gizmos that the rest of the company may not understand the necessity of. Everyone knows IT is crucial to operations, so often management is caught making a leap of faith that their IT personnel are operating in the most efficient way.

Moving to the cloud can make IT costs transparent and intelligible to those who most need to understand them—while providing the IT department with the tools to demonstrate the value of their work. Costs are fixed, itemized, and clear. Computing becomes a utility like electricity or water, predictable and scalable. In the same way that you don't need to understand the intricacies of power generation and transmission or the public water system to enjoy their benefits, you can benefit from world-class computing with as little, or as much, as you need—when you need it.

### Spreading the Wealth

With IT no longer an endless cost- and time-sucking black hole, your IT team can focus on supporting and enhancing the core of the business, while looking to create value and exploit new opportunities. Many IT teams thrive on the new capacity to focus on the forward-thinking technology services they went into the industry to provide.

Less money sunk into IT expenditures also means that money can spread among different departments, including sales, marketing, production, and operations. In fact, many companies are able to provide greater IT support to each department to use according to their own needs.

Does this mean IT professionals are now obsolete? Absolutely not. Having a strong team or individual to manage your technology is critical, and they can now do it more efficiently by leveraging the cloud. Rather than scrambling to keep everything running, effective cloud solutions free them to take a proactive approach to creating value for the company.

## It's Not Just About Cost. It's About Control.

One of the most celebrated aspects of the cloud is the fact that it can be cheaper than managing servers in-house or at a data center. However, just because it can be cheaper doesn't mean in all cases it is. In fact, it's a mistake to approach it simply as a cost containment measure.

The bigger benefit of the cloud is not cost savings, but cost effectiveness. In other words, with fixed, transparent pricing and easy scaling, cloud computing gives you unprecedented control over your IT infrastructure, meaning you can respond to and innovate in your industry faster than ever.

## Survival of the Fittest: Flexibility in the Cloud

When discussing the cloud, most cloud vendors talk about how easily you can scale up with your growth. Talking about growth is sexy. Grow, grow, grow! More users, more money, more usage, more money for cloud providers, everyone wins! And while it's true that most businesses do grow, of course it's never that simple.

There are also those times we don't like to talk about so much. The economy takes a hit. Business grows a little slower than expected, or not at all. Anyone who has been in business knows it has its seasons, and that just as there are times to expand, there are times to contract.

When your computing is in the cloud, you can scale down as easily as you can scale up. When it's time to cut back, you simply cut down your usage as you would with any other utility. Compare this to a hardware purchase, where your server is sitting on your rack whether you're using it or not, and meanwhile its value is going down. The cloud allows you to control your IT spending no matter what stage of the business cycle you're in.

## Avoiding Lock-In: Moving Between Deployment Models

Cloud deployment models are inherently flexible—often to the point that they're there for you even when the cloud isn't the best option. Many cloud providers offer multiple hosting models—for instance, co-location, cloud, and dedicated servers—and the ability to move from one model to another as your business changes.

Often, a company looking at cloud options has existing hardware that they don't want to waste. Many cloud providers will allow you to co-locate your existing servers at their secure data center, while accessing virtual machines on an as-needed basis to support your growth. At first, your co-location footprint may be high and your cloud footprint low. Over time, as your hardware depreciates, your co-location footprint may decrease and your cloud footprint increase.

While switching or combining models at will with ease is true in most cases, there are some exceptions. Notably, when purchasing dedicated servers, you may be locked into a specified term. The provider may be purchasing new servers just for you and will see no profit on these for the first 9-10 months, so they may not be able to offer the option to simply convert to the cloud fully at month three.

It's important to discuss all of these issues with any prospective cloud provider—or to access a knowledgeable third party partner who can guide you to an optimal solution for your business.

### Navigating the Hidden Costs of the Cloud

It happens in businesses all over the world. IT asks to buy the shiny new thing. Efficiency will increase 300%. Everything will run faster! Our current problems will be solved!

Then come the hidden costs.

Patches. Software. Upgrades. Maintenance. Hardware failure.

Technology can be unwieldy and pricing structures esoteric, and of course, this is incredibly frustrating to those counting the beans to make sure there are enough to go around.

Even with the transparent pricing model of cloud hosting, unforeseen costs can arise if not carefully understood and planned for. According to KPMG's The Cloud Takes Shape report, one third of IT executives found costs related to implementation higher than expected, and 31% indicated that integrating existing IT architecture with cloud services was a challenge.

With a little planning, these surprise costs can be avoided. Cloud providers will offer a number of additional services depending on your needs, such as OS management, database management, and more. The best way to figure out which are right for you is to work with an impartial and qualified expert, such as a cloud broker, who can help you find what you need for your particular business.

## If You Don't Need It, Don't Buy It

Technology is changing constantly. Innovations lead to more innovations, processor speeds double, new features are unveiled. Buying new hardware can be fun... watching it go obsolete again isn't.

The best way to avoid unplanned obsolescence is to purchase only exactly what you need. Consider the analogy of purchasing a new Porsche. Say you go to Germany and buy a brand new Porsche straight from the factory. While you're there, you decide to go for a drive on the world-famous Autobahn. Then, once you hit the road, you gun it until you hit a whopping 200 miles per hour.

It's nice, but did you really need a new Porsche on the Autobahn? Most people would agree it's a waste. The same is true for buying new hardware. Sure, it can be nice. But do you really need it for what you use it for?

Everything in IT should be scalable and fitted to the need. Most SMBs don't need to predict all of the requirements of the business, nor can they know precisely in advance how much they will need and when. You need to be able to scale according to changing business conditions, sometimes even from one day to the next.

A lot of companies build the most powerful server arrangement possible when setting up a cloud environment. This makes sense when you're ordering a server that will have to sit on a rack in the IT closet for the next few years, but it isn't necessary when you can add computing capacity on demand. When you are hosting servers on-site, under-provisioning system resources can lead to a server going to waste and the need to buy a new, bigger server. But with cloud providers, it's easy to upgrade computer and storage capability. Start smaller, and upgrade when you need to.

When you're ready to take that Porsche to full speed, you can immediately access the newest model for as long as you need it.



## 5 Common Cloud Mistakes to Avoid

In the haste to rush to the cloud, it's easy to make costly mistakes. Here are five you can't afford to make—and how to avoid them.

### Rogue Cloud Implementations

**Problem:** A study by Symantec found that three quarters of organizations have risked exposure of confidential information due to employee error. Without organizational oversight, employees may place sensitive information into the cloud.

**Solution:** Approach cloud services strategically, with effective employee policies and procedures. An experienced cloud broker can help you navigate these waters.

### Backup and Recovery Problems

**Problem:** According to the same Symantec study, 40 percent of businesses lack oversight into how and where data is backed up, putting themselves at significant risk in the event of an outage.

**Solution:** Create a disaster recovery plan based on the immediate, short-term, and long-term data recovery needs of your business. A knowledgeable cloud advisor can guide you through this process.

### Overpaying for Unused Storage

**Problem:** Many organizations pay more for storage than they have to.

**Solution:** Buy storage when you need it, and eliminate unnecessary duplication. Consult with a knowledgeable storage expert, such as a good cloud broker, to understand your exact needs and reduce your storage footprint.

## Compliance Violations

**Problem:** Companies in healthcare, finance, and other regulated industries must meet stringent government mandates around data storage and security. Putting it off or failing to understand and comply can result in game-changing fees and audits.

**Solution:** Consult with a knowledgeable compliance expert in your industry to ensure your data storage meets requirements. In many cases, cloud storage makes compliance easier, cheaper, and more effective than other options, but you must take the time to understand and ensure your needs are met.

## SSL Certificate Oversights

**Problem:** SSL encryption protects data in transit in the cloud. Many organizations don't realize that they are themselves responsible for managing the SSL certificates for their transactions. Mishaps in this department can be costly.

**Solution:** A trusted cloud broker can help you navigate your SSL needs and ensure your certifications are up to date and effective.

The easiest way to avoid all five mistakes is to partner with an experienced cloud broker who can guide you through the industry. Some cloud brokers, such as Opex Technologies, are completely free to use, and can work with you to connect the right providers and services for your business needs while simultaneously saving you money.

## The Big Question: Is My Data Secure in the Cloud?

Most businesses considering a switch to the cloud are understandably concerned about security. Despite a rash of big-name breaches that make the news, the cloud is a surprisingly secure way to manage your data—in many cases, more secure than an in-house data center.

Consider that a reputable cloud and IaaS provider maintains the following measures that would be prohibitively expensive to maintain in-house:

- Multi-factor authentication. Anyone who enters or leaves the data center must be verified via at least three factors: fingerprints, photo ID, pass code, key, and retina scans are common measures.
- 24-hour video surveillance. Every inch of a reputable cloud data center is monitored 24/7/365 by video camera, ensuring an accurate record of every physical access to the servers.
- The latest anti-virus and anti-hacking updates and software.
- Continuous monitoring for suspicious activity by security experts.

### Public Versus Private Cloud

If data security is a significant concern for your organization, you may wish to consider whether a public or private deployment model is best for you. Both are good choices, but private offers an additional level of security. Consider an analogy:

Private cloud vs. public cloud is similar to the difference between buying a house and buying a condo unit. When you own a condo (public cloud deployment), everyone in the condo may all use the same front door to the building (the portal). However, only you have the keys to your own unit. You may also have your own alarm system, change the locks, and control who has access to your unit.

In a private deployment, you have the front door keys, alarm system, and control of a public deployment plus the additional security of not sharing the main portal. You can gate the entire property, and no one can even get close to the front door if you don't want them to.

Because the cost of constructing the building is shared by all the residents, the condo is cheaper than the house. The same is true of the public cloud.

In some cases, however, an extreme level of security is called for. In this case, the nearly double cost of a private deployment is called for. Private cloud is usually a good choice for companies in healthcare and finance.

## Wading In: Taking it Slowly

The process of moving to the cloud can be intimidating for businesses of any size.

Luckily, you don't need to do it all at once.

Think of it like a trip to the ocean. Most people aren't going to sprint down the beach and jump straight in. It's often better to walk onto the beach, lay a towel on the sand, ease up to the water, dip a few toes in, and check the temperature before slowly wading in.

The same principle applies to moving your IT infrastructure to the cloud. Large corporations aren't just throwing all aspects of their businesses onto the cloud right away, and smaller ones don't need to either.

You can start with your most pressing needs, and gradually move more services onto the cloud as you gain confidence and see how well the model works for your business. Common places to start include hosted exchange, email, or storage. Disaster recovery and backup are also good places to start. For instance, you may want to keep your production servers on-site or in a data center, but want to start having them replicated in another geographic location.

# GET HELP WITH THE CLOUD.

We have cloud advice  
you can trust.



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## Getting it Right from the Start

You wouldn't buy a private aircraft and take off into the sky alone if you've never piloted a plane before, and you shouldn't have to take your company into the cloud alone either.

Accessing quality, experienced, unbiased guidance can spell the difference between disaster and soaring to new heights. Opex Technologies partners with businesses across the country to assess their needs, navigate the options, and negotiate the best possible solutions to support their business aspirations. Our advisors will help you understand your cloud needs, select the best options, and then pair you with the cloud providers that truly meet your needs. Most of the time, we'll save you money as well as hassle—and our service is completely free.

Find out today how launching into the cloud can move your business forward, with a free, no obligation consultation. Our experts are waiting to serve you.

# CLOUD READINESS CHECKLIST

[DOWNLOAD NOW](#)

Find out if you're ready for the cloud





# ABOUT OPEX TECHNOLOGIES

With a passion for helping clients drive business and increase revenue, Opex Technologies (formerly doing business as DigiTel Services) was founded in 2003 with the goal of becoming the trusted resource for Network, Cloud, and Infrastructure solutions.

Headquartered in Raleigh, NC, near the Research Triangle, we advise companies of all sizes on how best to implement the most effective and affordable OPEX technology solutions.

While we work with small to medium business as well as large enterprises, we are unique in that we are truly a hybrid consulting and brokerage firm rolled into one. Moreover, we partner with over 40 leading Network, Cloud, and IaaS providers to find the right solutions at no cost to our clients.

Leveraging decades of industry knowledge and experience, we aim to earn our clients' trust by delivering technology solutions that are relevant, strategic and the engine of growth.

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