CLOUD AND YOUR BUSINESS

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The cloud is not your hard drive — that is considered local or physical infrastructure.
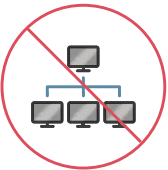
The cloud is not your company network — that is still your internal LAN or WAN.

The cloud is not just the Internet — it is not just a website–filled world.

The cloud is not your data center — again, that is local or physical infrastructure.

INTRODUCTION TO CLOUD COMPUTING

Cloud talk is everywhere, because cloud computing is everywhere. Most people are using it in their personal lives, although they might not always realize it. And most businesses have dipped their toes, or more, in as well. In fact, 70 percent of companies have moved at least one application to the cloud, and the average large enterprise runs 45 percent of its IT environment in it [1].

So, it's pretty clear cloud is becoming mainstream. But for many organizations, and perhaps even yours, the big questions still remain: What, exactly, is the cloud? How should I use it? What opportunities can it offer my business? How can I take advantage of those opportunities?

Let's answer those questions and find out what it really means to be "in" the cloud.

What is the Cloud?

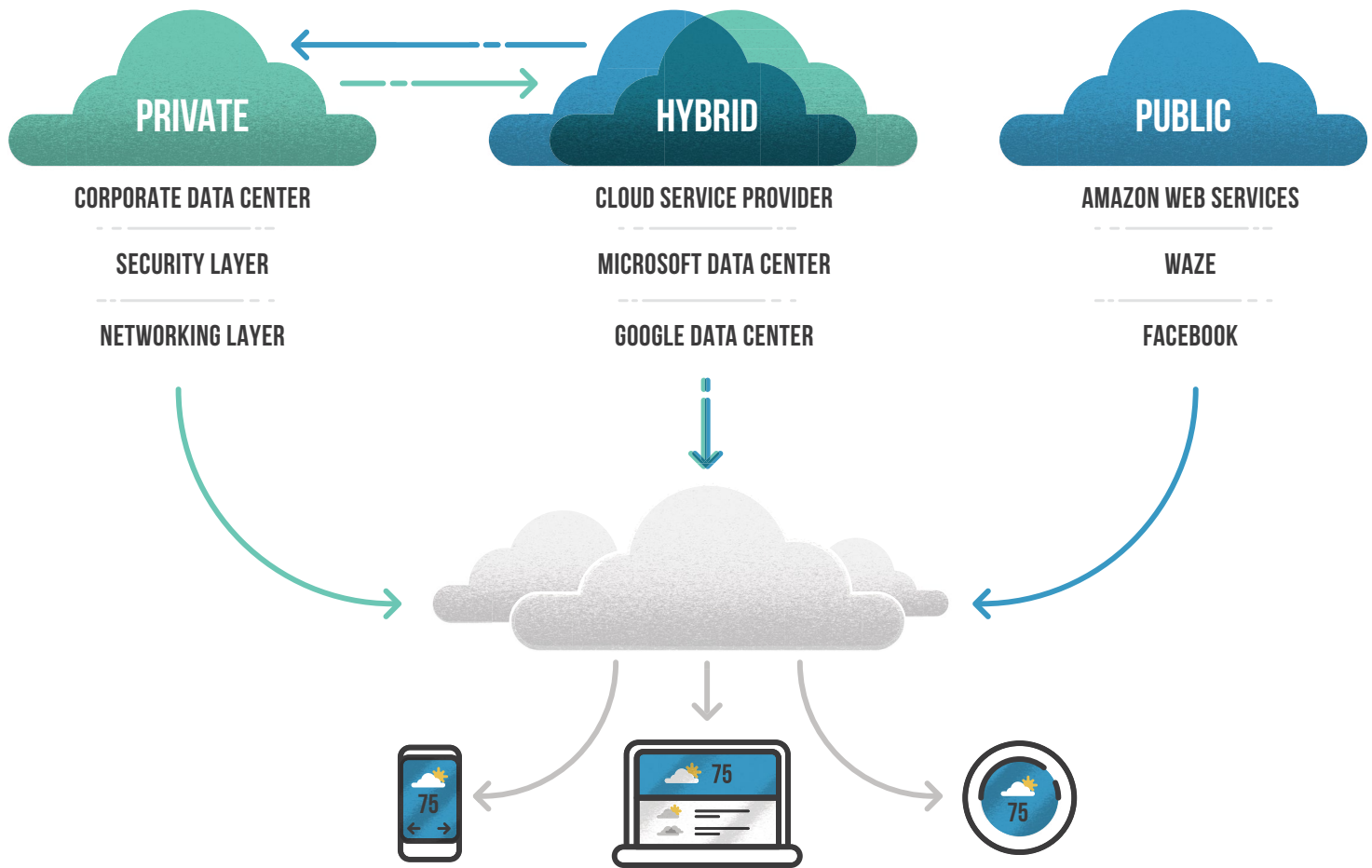There are so many definitions of cloud computing. So, let's make it simple.

The cloud is a metaphor for the Internet and transacting over the Internet. Cloud computing means that you store and access data and programs over the Internet instead of on your physical computer.

Cloud doesn't require bricks and mortar, but rather a collection of technology end points or devices that come together to deliver services to your teams, your customers and your partners.

Cloud comes in a variety of forms… actually three. And, no, we don't mean cumulus, stratus and cirrus. It can be a public cloud hosted offsite, a private cloud that's onsite in your own facilities, or a hybrid cloud — a mix of both. The beauty of the cloud is that it provides options so you can choose what works best for you, depending on the scenario.

Let's take a quick look at how we define these clouds. We will unpack their suitability for your business a little later.

The Three Clouds

PRIVATE	HYBRID	PUBLIC
CORPORATE DATA CENTER	CLOUD SERVICE PROVIDER	AMAZON WEB SERVICES
SECURITY LAYER	MICROSOFT DATA CENTER	WAZE
NETWORKING LAYER	GOOGLE DATA CENTER	FACEBOOK

PRIVATE CLOUD

Private cloud (also called internal cloud) is a marketing term for an enterprise computing architecture that's owned and managed by your business and protected by a firewall. The private cloud model is designed to appeal to organizations that want more control over their data than they could get by using a third-party hosted, or public, service.

HYBRID CLOUD

A hybrid cloud is a cloud computing environment in which an organization provides and manages some resources in-house and has others provided externally by a third party. It marries the best of private and public clouds, and gives the user the ability to store critical business data onsite.

PUBLIC CLOUD

A public cloud is based on a standard cloud computing model, where a service provider (think Google or Amazon) owns and maintains resources, such as applications and storage, and makes them available to the public over the Internet. Public cloud services may be free or offered on a pay-per-usage model. They are easily accessible via any device that has a web browser: laptop, smartphone, computer, iPad and more.

CLOUD COMPUTING AND YOU

Before we dive into the business aspect, let's start with your personal experience. Do you use the cloud? Not sure? Well, do you use Uber or Dropbox? What about Facebook or e-banking?

If so, then you are in the [public] cloud. How did you get there? We'll use online banking to explain the progression to using cloud as a de facto standard for transacting with vendors/providers.

The Backdrop: Online Banking

For most of us, it's been a while since we last ventured into a bank. In fact, it's almost hard to remember the good ol' days when large bank buildings housed rows of tellers who would greet you by name, deposit your check and hand you cash and receipts.

Today, instead of reaching for your keys to make a financial transaction, do you not reach for your keyboard or your phone? Isn't it easier?

Online banking stripped away the physical layers people were comfortable with, and gave them

options. It was never an either/or — you could go into the bank or online. But as it matured, people became very comfortable with online banking and now, to a large extent, prefer it.

This behavior is similar to what cloud computing has done for general business.

Would you rather drive to a physical environment to have a meeting, collect data or information, fulfill a simple transaction — or do it from your desk, or even from a park?

The cloud gives people back their time. It encourages productivity, speed of delivery and customer service efficiencies that have never before been possible. It turns transacting into an "at-your-fingertips" service.

Take this a step further and put it into an enterprise context. Cloud computing is the delivery of computing resources as a service. What resources? Applications, platforms, infrastructure, storage, databases, security and even back-end resources — all of which are delivered to you via a model called "as a Service."

It's All Cloud

APPLE MUSIC
No need to buy CDs anymore. With Apple Music, you simply pay a monthly subscription, and the music you like streams to your phone or iPad whenever you want it.

DROPBOX
With Dropbox you can store files and access them from your phone, tablet and laptop.

FACEBOOK
You stay in touch with friends and family, update them on your day-to-day activities and find out what they're up to on their Facebook pages.

FLICKR
As soon as you take a picture with your smartphone, you can store it on Flickr to save or share it immediately.

GOOGLE MAPS
You don't need a GPS device anymore. Google Maps helps you plan routes, avoid traffic and even select public transport options.

KINDLE
Love to read? You can download all your favorite books using the Kindle app.

OFFICE 365
You can connect to your documents on SkyDrive via your phone, tablet or laptop. Be engaged no matter where you are.

PINTEREST
Save all your favorite websites and ideas on Pinterest. You can pin and share them with a network of like-minded people around the globe.

SKYPE
You can easily stay in touch with your family or colleagues overseas. Do more than just talk when you can share video and instant message anytime.

TWITTER
Twitter keeps you up-to-date with news and events that are of particular interest to you. Follow #hashtags so you always know what's going on.

UBER
You don't have a car, but need a ride? UBER makes it easy to get where you need to go.

WAZE
When traffic is a nightmare, Waze lets you proactively find a different route by using its crowdsourced power to know exactly what the traffic situation is like everywhere.

XBOX
Playing games on your own used to be so dull, but now with Xbox Live, you can chat with friends while they play from the comfort of their couch, stream new games and even join clans and groups from all over the globe.

YOUR BUSINESS AND CLOUD COMPUTING

The Opportunity

- Cloud computing makes it much easier for businesses to accelerate development and operations, cut costs, increase productivity and profitability, and enable business continuity.

- Using the cloud to access infrastructure and applications, as opposed to installing software on devices that you own and operate, alleviates the pressures of managing equipment and licensing requirements, reduces CapEx and frees up valuable resources.

- Your business becomes mobile and speedy. Employees collaborate with colleagues and conduct business from anywhere and any device. And because, by its nature, cloud is oriented toward self-service, workers also get more done, faster, on their own.

- Customers engage with your services, products and employees in a much more convenient and rapid way.

- You can be much more responsive to market needs by rolling out new solutions and services faster and more cost-effectively.

- When you use external cloud resources, you ensure that business can continue without interruption even if your own facilities lose power or your systems go down.

How Cloud Makes IT More Effective

- Creates efficiencies within your IT department by leveraging hosted cloud resources and minimizing the need for internal staff to support onsite systems.

- Reduces the load on your infrastructure and, likewise, your IT teams.

- Helps standardize business systems, solutions and user profiles, making them easier to manage and minimizing risk.

- Lets IT teams focus on more strategic projects rather than on day-to-day systems and application management.

- Enables IT to deploy applications and systems much more rapidly, provisioning solutions on the fly.

- Allows using offsite teams to support applications such as email, productivity suites and even business systems.

- Makes it easy to tailor mobility solutions for field workers and field sales teams through customized platforms.

BEFORE YOU DEPLOY

Before you begin choosing cloud deployment models, or selecting the services you want to access, such as Software as a Service (SaaS), Platform as a Service (PaaS) or Infrastructure as a Service (IaaS), you need to consider a few questions:

- What is my organizational appetite for the cloud?

- Do we need our own private cloud?

- Can I find a cloud service provider that has the right security policies in place?

- What do I need to keep internal and what can I quickly move to the cloud?

- Can my staff and customers benefit from the cloud?

- Will the cloud save me money in the short and long term?

- Do I have the skills to migrate to the cloud?

- Do I have the right partners and vendors in place to help me get effectively transitioned to and take advantage of the cloud?
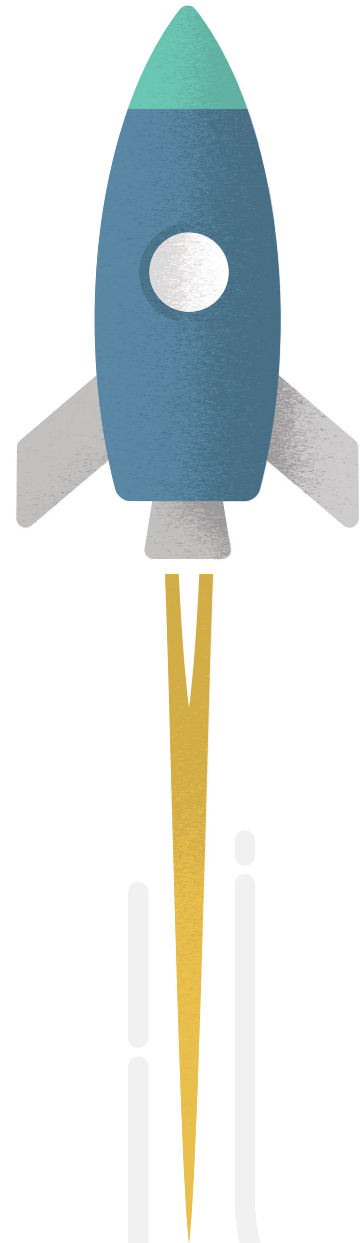
WHICH CLOUD WORKS FOR YOU?

Buying Patterns

So, as a reminder, private cloud means it's your cloud, your systems and you manage it. Public clouds are owned by someone else and you access them via the Internet. Both have pros and cons, depending on your circumstances.

Accessibility

Public clouds allow you to replicate data to many applications with a single login through the Internet. They are ideal for multi-branch organizations that have offices around the globe. Limitations creep in when there are bandwidth constraints.

Security

Because public clouds are publicly accessible, companies that have client-sensitive data are sometimes reticent to put it in the cloud. While there are security solutions that firewall your data — it's a risk profile that many are still navigating.

This is where a private cloud may be the best choice, especially for financial services, healthcare and even telecommunications firms that want to safeguard customer data. Businesses select private cloud over public cloud to avoid potential security concerns.

Scalability

If your business has users, applications, projects or customer traffic that fluctuate in volume, the public cloud gives you the option to quickly scale up or down, and pay only for what you use. Even if you don't have variability, public cloud enables you to grow without adding infrastructure.

Deployment and Resources

The public cloud is much easier to deploy since, really, there's not much to deploy. You simply purchase the service and make it available to your users. And because your service provider does all the heavy lifting — maintenance, upgrades, troubleshooting — you reduce the burden on your own IT organization. You also reduce how much you spend on equipment and personnel. As you can imagine, that's quite compelling, especially for small- to medium-size businesses.

Conversely, the private cloud's dedicated hardware and bandwidth resources make it an attractive option for many large enterprises. It provides resources on demand, preserves your current infrastructure investment, enables you to dictate your security policies, and offers a high level of control. On the downside, it takes much longer to deploy and much more money and labor to maintain.

The New Darling — Hybrid Cloud

Both private and public clouds can be advantageous to your business, so why choose? With hybrid cloud you get the best of both worlds, retain control, dictate security, and outsource and insource as needed.

Remember a hybrid cloud is an infrastructure that includes a cloud managed by you (private cloud) and at least one third-party cloud (public cloud). In the hybrid world, your clouds do not have to meet. You can use them to offer different services to different parts of your organization. For instance, IT might use Amazon Web Services (public) to quickly test new applications or features, and HR might keep its payroll data on your private cloud.

PRODUCTS IN THE CLOUD

There are so many cloud "as-a-Service" products that you may feel a little out of your depth when selecting what suits your business. Some companies find it's easier and more effective to look at solutions sets, or bundles, rather than individual, point products.

KEY CLOUD SOLUTION BUNDLES

A recent IDC/Westcon-Comstor survey of cloud channel partners found their customers are most attracted to the following bundles [2].

IAAS + STORAGE, BACKUP, DISASTER RECOVERY AND/OR SECURITY

80%

OFFICE PRODUCTIVITY (EMAIL, CALENDAR, ETC.) + SECURITY

62%

UNIFIED COMMUNICATIONS + DEVICES + CONFIGURATION SERVICES

53%

Software as a Service (SaaS)

SaaS is any software offered remotely as a service. Consumers access on-demand applications that are provided by the service provider using a client device and a Web browser.

Infrastructure as a Service (IaaS)

IaaS provides virtualized computing resources over the Internet. In this model, a third-party provider hosts hardware, software, servers, storage and other infrastructure components on behalf of its users.
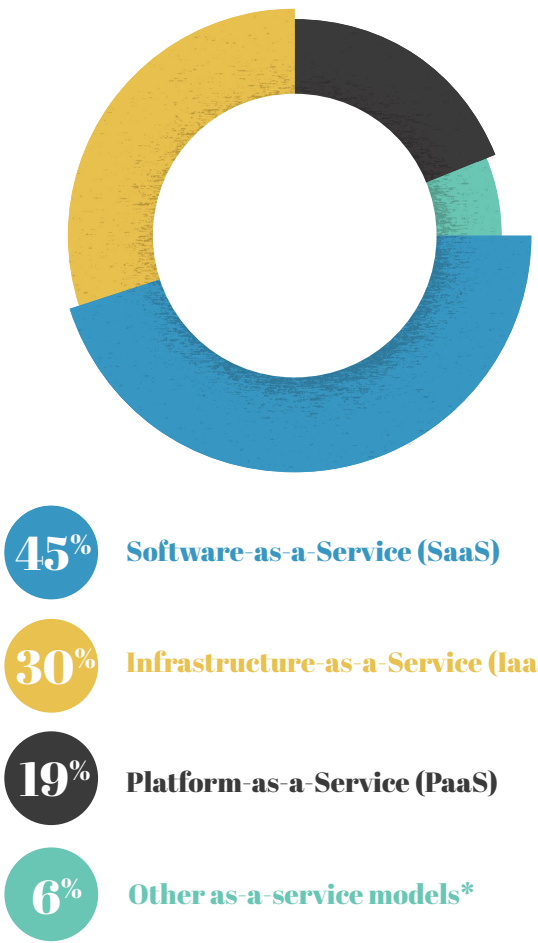
Platform as a Service (PaaS)

This hosted software serves as a platform for building SaaS offerings. It provides the capability for consumers to have applications deployed without the burden and cost of buying and managing hardware and software.

Backup as a Service (BaaS)

BaaS is a subcategory of SaaS. It provides users with a system for backup (often remote), storage and recovery of computer files.

CLOUD BUDGET ALLOCATIONS

It may also help to know that, according to IDG Enterprise, the average company plans to allocate its cloud budget to these services [3].

45% **Software-as-a-Service (SaaS)**

30% **Infrastructure-as-a-Service (IaaS)**

19% **Platform-as-a-Service (PaaS)**

6% **Other as-a-service models***

* Such as Backup-as-a-Service, Storage-as-a-Service

And What Do Those as-a-Service Buckets Include?

Here are just a few examples:

Software-as-a-Service

Microsoft Office 365 — Combines familiar Microsoft Office collaboration and productivity tools. People can take advantage of anywhere access to email, Web conferencing, documents and calendars. The suite comes with business-class security built-in and is supported and backed by Microsoft.

Adobe Document Cloud — Provides an efficient way to work with documents in the cloud. You can create, review, approve, sign and track documents from a desktop or mobile device.

Symantec Protection Network — Delivers easy-to-use security and availability offerings to small- and mid-sized businesses at a price they can afford. The Online Backup Service enables cost-effective, reliable backup and restoration of business-critical data from the convenience of a Web browser.

SkyKick Enterprise Migration Suite — A tool that helps larger businesses (250–10,000 users) transition to Microsoft Office 365.

Infrastructure-as-a-Service

Oracle Cloud — A set of core infrastructure capabilities, like elastic compute and storage, that enable you to run any workload in the cloud.

Amazon Web Services — Delivers a set of services that, together, form a reliable, scalable and inexpensive computing platform in the cloud.

Platform-as-a-Service

Microsoft Azure — A cloud computing platform and infrastructure for building, deploying and managing applications and services through a global network of Microsoft-managed and Microsoft partner-hosted data centers. It provides both PaaS and IaaS services.

MYTHBUSTERS — THE TRUTH OF CLOUD COMPUTING

Cloud has the potential to radically change the way companies operate and conduct business. But, as is typical with emerging, disruptive technologies, there's a good deal of confusion about what is and isn't possible with cloud computing. Myths and misperceptions are slowing its adoption and impeding innovation. So here are a few myths we would like to bust on your behalf.

MYTH 1

My data is not secure with the cloud.

With some clouds, it's not secure, so it's important to check with the cloud provider you want to engage. But as a rule, any providers offering cloud-based data centers have advanced security built in. They use a defense-in-depth approach for providing physical, logical and data layer security and operational best practices.

MYTH 2

You own all your data in the cloud.

Once uploaded, your data may not be exclusively yours. You may have some cross-border headaches if it's hosted in another country. They get to determine if your data violates the host country's copyright or IP laws. The host site also determines if your data is offensive according to the country's standards. Some sites may even sell ads based on your content, meaning your information isn't really private at all.

MYTH 3

The cloud should be used for everything.

In some cases, cloud is not only a great fit, but also the perfect solution. However, not all applications, workloads and circumstances benefit from the cloud. Look at each application and workload as its own entity and determine if there is a real reason to move it to the cloud. If there isn't a clearly defined benefit, like cost or time savings, keep it where it is.

MYTH 4

I need to be connected to the Internet all the time.

Not always and not with all applications. Take Office 365, for example. You can work on your documents, emails and content in an offline state. When you are ready and have an Internet connection, your data, documents and emails are automatically synchronized. You don't have to be connected to be productive. This is the same for applications such as Amazon, Google Drive and even Dropbox.

MYTH 5

Cloud is cheaper and there's no need for support.

Cloud can be cost efficient by allowing you to activate and deactivate servers based on workloads and demands. This allows you to align your IT spend with your revenue demand patterns. Moving a capital expenditure to an operational one is attractive to many businesses. However, if your revenue/workload demand patters are more aligned with a 24x7x365 pattern, it may be more cost effective to maintain or update current infrastructure. Automation provides many benefits, but the more businesses wish to leverage cloud, the more complex it becomes. The level of in-house expertise may not be sufficient as adoption and solutions grow. It may be beneficial to seek out solution experts to help manage your migration.

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Delivering Results Together

Contact us today if you'd like to learn more about how Westcon–Comstor can help you with your cloud transformation.

Westcon-Comstor is ready to help you realize cloud success.

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