

What Is The Cloud?

This guide provides:

- ✓ A definition of the cloud
- ✓ Explanation of the different types of clouds
- ✓ Information about cloud services
- ✓ Three key challenges of cloud computing

Brought to you by Intega IT | www.intega.ca/it-services/cloud-services

Cloud computing can completely change the way a business uses technology to service customers, partners and suppliers. However, before your business can tackle the cloud, it is important to understand what you're getting involved with.

Data Storage: Then to Now

Let's put the cloud in perspective for a minute. Before the adoption of the cloud, all of our files were stored on hardware. Spreadsheets, projects, pictures, and everything in between were all stored on hard drives or CDs. In order to access this information, it was imperative

that you had these hard drives or CDs with you. Today, because of the cloud, our files are accessible from anywhere and by whatever means we want. We store our photos on *Facebook* and *Instagram*. We upload files to *Dropbox* or *Google Drive*. When was the last time you sent yourself an email with an attachment so you could read it later on your mobile phone? The cloud gives us faster and more convenient access to our data.

The Cloud: The Basics

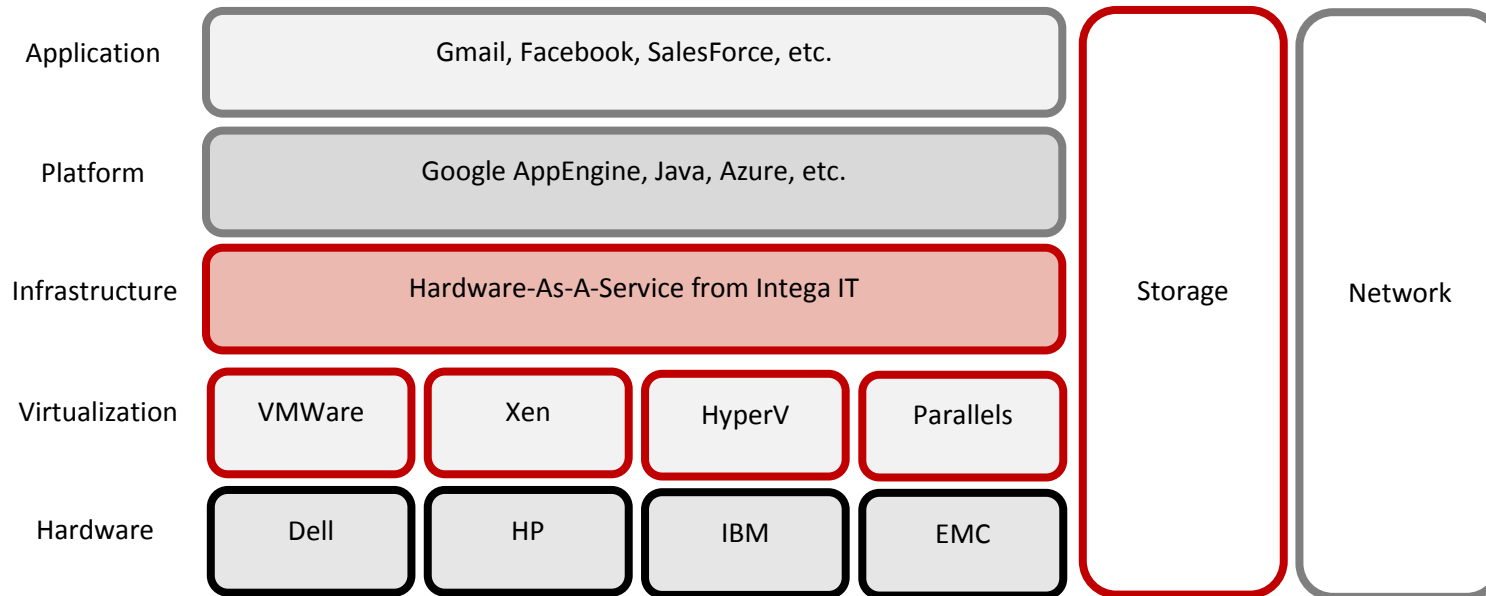
The cloud is where you access services that help store or run software applications from wherever

you need them. According to Gartner, cloud computing promises economic advantages, speed, agility, flexibility, infinite elasticity and innovation. Cloud services can provide a way to increase capacity or add capabilities on the fly without having to invest in new infrastructures. They can provide flexibility, scalability and are fully customizable to the needs of your business. However, cloud services are not always a fit for everyone's IT support requirements. According to Gartner, cloud computing forces your business to wrestle with three key strategic, operational and people challenges: Governance, Environments and Security and Privacy.

Governance: Preparing Your Business for the Cloud

When your business is looking to move to the cloud, you need a clear vision, effective processes, skills and organizational structure for it to be effective. Here are some questions to ponder before moving your business to the cloud:

Best Practices	Business Model	Cultural Barriers
<p><i>What strategies will better align business and IT? How should you measure business value? Is cloud technology selection really the easiest part?</i></p>	<p><i>How will you deliver value to the business? Which functions will you move to the cloud? What use cases will drive the most impact? How will you fund cloud computing? What are the spending and staffing risks?</i></p>	<p><i>What cultural changes does your organization need to make? How will you get buy-in from your security department and stakeholders? Have you considered cloud requirements and needs for all stakeholders?</i></p>



Cloud Computing Environments

When moving services, storage, email, collaboration and applications to the cloud, you need to decide what type of cloud environment will work for your business—private, public or a combination of both, also known as a hybrid. Also, what is the right mix of infrastructure (IaaS), platform (PaaS) and application (SaaS) environments for your business?

Public vs Private – What’s Better for your Business?

Public Cloud:

Virtualized data centers outside of your company’s firewall. This allows resources to be made available to companies on demand over the public Internet. Many small businesses will find public clouds attractive because of its pay-as-you-go fee structure and the removal of a Capital Expenditure which removes the normal barrier associated with the adoption of new technology.

Questions to Ponder: Which applications are most likely to move to public cloud delivery models? Will your organization bypass your IT department and get its applications from the cloud via SaaS for a monthly pay-per-user-per-month subscription model?

Private Cloud:

Virtualized cloud data centers inside your company’s firewall. It may also be a private space dedicated to your company within a cloud provider’s data center. Larger companies normally find it worth the investment to virtualize their internal infrastructure since the private cloud offers much higher levels of control, security and availability.

Questions to Ponder: Which services require the most agility and speed? What is the right balance of standard service offerings that will drive the most business value? Do you need to build an internal share-service center? How does a private cloud implementation impact your data center architecture?

Hybrid Cloud:

Combines both public and private clouds to create an ideal environment. A business can maximize their efficiencies by using a public cloud for non-sensitive operations and private where required. Hybrids are ideal for ecommerce sites or businesses that have high-traffic blogs, content management systems and database-driven web apps.

Questions to Ponder: Is hybrid really the future? What levels of flexibility do you need to customize, manage and monitor your applications? How will cloud services define future IT organizations?

Cloud Services – The Layers that Protect your Business

Software-as-a-Service (SaaS): SaaS is a term used to describe a software delivery method where a business or organization (the client) is provided access to software and its functions remotely as a Web-based service. SaaS removes the need for a business to handle the installation, set-up, maintenance, as well as investment in additional hardware. SaaS is sometimes referred to as hosted solutions.

Platform-as-a-Service (PaaS): PaaS is a term used to describe a computing platform being delivered as a service. The platform is outsourced in place of a data center purchasing and managing their own hardware and software. Typically, PaaS allows for the deployment of applications, application development, testing as well as the building, testing and hosting of Web applications. It allows IT to develop, test, deploy, host and update from a single streamlined environment.

Infrastructure-as-a-Service (IaaS): IaaS is a term used to describe computer infrastructure being delivered as a service. It is a model in which a business outsources the equipment used to support operations. The service provider owns the equipment and is responsible for housing, running and maintaining the hardware. IaaS is sometimes referred to as Hardware as a Service (HaaS).

Security and Privacy

When looking to move your business data to the cloud, security and privacy of information becomes a key concern. Here are some questions to ponder before making the transition:

Virtualization

How will you use virtualization to innovate? How can workloads be secured when consuming cloud-based infrastructure as a service? Are you ready to run your physical appliances as virtual ones?

Data Protection

How will you protect your data in the cloud? What security controls should you inject? Who will have access? How will you migrate your data?

Cloud Provider Assessment

What security vendors will get it right first? Which will guarantee delivery? What if the cloud fails? Where are the standards? What level of transparency do you need?