

## Cloud Buyers Guide

How to choose the right Cloud solution for your business





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## What is Cloud Computing?

Cloud Computing allows you to access your applications and data from infrastructure managed by a service provider, so that you can work from any location and from any device.

Cloud Computing replaces the traditional on-premise model, in which an organisation would purchase, deploy and manage physical equipment on site.

Cloud Computing offers an enormous number of benefits, including reduced costs, increased security, reliability and performance.

## A brief history of Cloud Computing

Cloud computing first began it's initial stages over 60 years. In the 1950s, cloud computing started as organisations began to use a more complex and ever-changing system of expensive mainframe computers to process their data. Businesses would purchase a few machines and then they would implement "time-sharing" schedules to increase their return on investment.

This allowed several users to access a mainframe computer from connected stations that carried no processing power of their own. This type of shared computational power is the basic premise of the cloud. 1955 saw John McCarthy, who originally came up with the term "artificial intelligence," develop a theory of sharing computing time among an entire group of users. This maximised the huge investment of large organisations and gave smaller companies the type of automation enjoyed by larger companies without the huge upfront investment.

By the mid-1960s, an computer scientist from the US named J.C.R. Licklider developed an idea for an interconnected system of computers. He envisaged a world where 'everyone would be connected'. His idea led to the development of ARPANET, which was known as the 'predecessor of the Internet'. From the 1970s to the 1990s, he saw many advancements in the technology required for cloud computing. Once it started to spread, cloud computing became a go to for companies by 1996.





## **Types of Cloud Computing Services**

Cloud Computing Services are designed to be flexible and convenient. Most importantly, Cloud Services can be integrated into an existing environment, allowing your organisation to benefit from cutting edge features and functionality. If your business is considering a move to the cloud, it can be accomplished in small, manageable steps. In most cases, your service provider will complete all of the work on your behalf.

#### Infrastructure as a Service (laaS)

Infrastructure as a Service provides your business with everything that it needs, to migrate to the cloud. This typically includes virtual servers, storage, software licensing and network connectivity. Most modern cloud service providers offer laaS in two flavours - Private Cloud, which provides your business with access to dedicated hardware to meet compliance or performance needs and Public Cloud, which provides you with access to a cost effective 'shared' environment.

#### Platform as a Service (PaaS)

Platform as a Service provides your organisation with everything that you need to develop, test and deploy software in the cloud, whilst benefiting from a fully managed service, in which the service provider is responsible for the management and operations of the underlying hardware.

#### Software as a Service (Saas)

Software as a Service provides with you access to an application, typically delivered through a web based interface, which can be accessed with a web browser. Software as a Service provides your organisation with access to the latest software, on a monthly subscription for simplicity and convenience. With this model, the provider is responsible for the management of all aspects of the service.

## **Advantages of Cloud Computing**



### **Cost efficiency**

Cloud Services are often delivered via a flexible and convenient monthly subscription (Opex) which allows your business to scale, on demand, whilst negating the requirement for traditional on-premise hardware and software licensing (Capex).

## **Resilience and Security**

Cloud Platforms are often designed with performance, resilience and redundancy in mind, which ensures that cloud services are delivered via an 'always on' model. Cloud Platforms - the physical hardware responsible for the processing and delivery of services, is hosted within a purpose made facility, known as a Datacenter. Whilst Datacenters vary in terms of quality and features, most providers offer dual power, on-site generators, 24/7/365 on-site security and other biometric and physical security measures, to protect your data. When combined, Cloud Solutions offer increased security, reliability and performance.

### **Accessibility and Convenience**

As we mentioned in previous sections, Cloud Computing Solutions are typically delivered as Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). Whilst these vary in purpose and features, they can all be accessed securely over the internet, from any location and on any device.

## Flexibility and Scalability

Technology has evolved significantly in recent years and like the dinosaur, traditional on-premise servers may become extinct. With Cloud, the Service Provider is responsible for the provision and management of the hardware resources, whilst ensuring that there's sufficient capacity available to accommodate potential failures and continued growth. Temporarily scaling up resources as and when needed is a pocket-friendly option for SMEs or Startups. Elastic applications that experience high-demand periods can utilise the scalability feature of the cloud to cater to an extended size of users.



## What's right for my organisation?

There are various types of cloud computing models, each of which provides a range of additional features and benefits, to meet the exact needs of your business. Whilst we're going to outline the 3 most common options, it's important to note that you can transition between deployment models.

## Public Cloud

Public Cloud is the most common deployment model. In this scenario, multiple organisations may be deployed on the same physical hardware. Public Cloud is significantly more cost effective than a Private Cloud platform, whilst offering protection.

## Private Cloud

Private cloud is strictly dedicated to one client.

Therefore, the client can customise the cloud in order to meet their needs and requirements.

Most organisations host their data in a private cloud.

## **Hybrid Cloud**

Hybrid Cloud provides the ultimate in flexibility - the best of all words. A combination of Public Cloud, Private Cloud and Software as a Service, allows you to implement a highly customised solution.

## Common myths while working with the Cloud

#### Our data is online, and at risk

Migrating to the Cloud will in most cases, significantly improve the security of your systems and data through the use of enterprise grade hardware, software and security technologies which are managed by the service provider.

### Moving to the cloud is complicated and expensive

Moving your services to the cloud is no different than a typical hardware refresh, in fact it can be significantly easier and more cost effective - as your business migrates from a Capex to Opex Model. Your service provider will often undertake a thorough pre-flight assessment of your existing hardware, applications and business processes to plan an efficient and safe cloud migration plan (CMP).

## My business no longer requires an IT team

Whilst Cloud Solutions and their associated services can introduce business efficiencies, increase reliability and uptime, IT Administrators will always play a critical role. As your business embarks on it's digital transformation journey, the role of the IT Team will evolve with it.

### **Cloud is expensive**

When your business migrates to the cloud, you'll often transition to a convenient, flexible monthly subscription model, which flexes with your business. License rental schemes from providers such as Microsoft, Citrix and Veeam, provide you with access to the latest technologies on a per-user or per-device basis.



# The future of Cloud Computing Services

Nearly all of the services that we utilise at home or in the workplace are already delivered through the cloud. In fact, the reliability and performance of the cloud, means that we often take it for granted that our Smart Assistant will always respond when we ask it a question, that we can watch a movie whenever we want and that we have the news at our finger tips.

As in recent years, Cloud Adoption will continue to grow exponentially as more businesses embark on their digital transformation journey. Cloud is at the heart of every journey and regardless of whether it's delivered through an Infrastructure, Platform or Software as a Service model, it's reliability, flexibility, performance and cost-effectiveness will level the playing field for businesses of all sizes.

The data collaboration between Enterprises from similar domains will provide them access to new research, reduce data redundancy and improve data analytics. With the introduction of CI/CD and machine learning, development methodologies are being empowered and accelerated to a great extent by the Cloud. As interfaces are being built on standardized UI and with common UX principles, the services of the cloud will further narrow down from Application sharing to just user experience hosting.

Wherein businesses need to generate the business logic and the user experience they intend their users/customers to have, while the underlying application will be provisioned by the Cloud Computing service providers. Though it seems like a far-fetched thought, looking at the pace at which Cloud Computing Services are evolving, nothing seems utopian.



## Buyer's Guide

As you embark on your Digital Transformation and Cloud journey, it's important that you find a partner that understands your business from the inside out. Here's a quick check list to help you find the right cloud partner for you.

| Demonstrable understanding of your business and a clear vision and strategy.   |
|--|
| Do they own and operate their own cloud computing platforms or services, to ensure that they can support every aspect of the solution. |
| Offer 24/7/365 Technical support   |
| The Solution(s) comply with ISO 27001:2013 Information Security Standards and GDPR.  |
| Local, knowledgeable technical support teams and account managers  |
| Certified Eco-Friendly Datacenter environment  |
| Established track record in the design, deployment and management of large scale cloud computing platforms                             |



#### What to consider and discuss...

- Have we undertaken a comprehensive assessment of our existing processes and systems?
- Where is our data going to be held?
- Are all of our applications, cloud ready?
- What will our backup strategy look like?
- Do we need a disaster recovery solution?
- What security measures do we need to put in place?
- Do we have sufficient connectivity?
- Does the service accommodate remote workers?
- How much time will be involved and what are the costs?
- What is the Cloud Migration Plan (CMP)?



#### Lisburn

Knockmore Hill Industrial Park, 11 Ferguson Drive, Lisburn, Co.Antrim, BT28 2EX

Telephone: 028 9267 7533

E: enquiries@xperience-group.com

W: www.xperience-group.com

#### Peterborough

Churchill House, Isis Way, Minerva Business Park, Lynch Wood, Peterborough, PE2 6QR Telephone: 01733 362 120

#### Glasgow

Nasmyth Building, Nasmyth Avenue, East Kilbride, Glasgow, South Lanarkshire, G75 0QU Telephone: 013 5581 3185