

# Cloud Computing 101

by RSAWEB

Cloud is all the rage. If it were a fashion trend, it would be walking down the ramps in London, Milan and New York. It's time you understood what all the fuss is about.

More importantly, apart from being the latest geek buzzword - it's a growing technology trend that offers real benefits for businesses, big or small - especially if they are web-based, or web-enabled in some way.

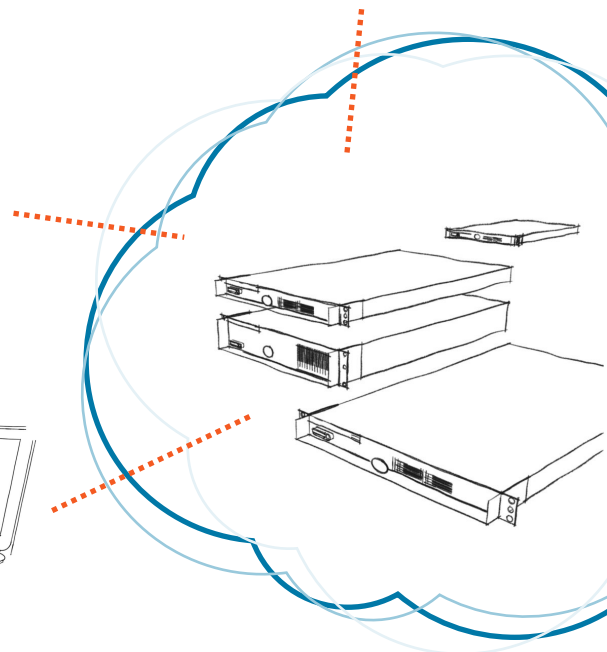
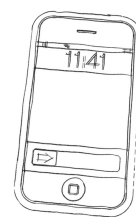
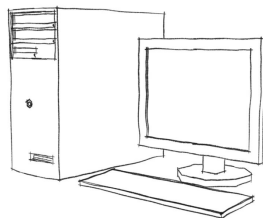
**Cloud Computing is a huge topic**, so we won't go into heavy technical detail, but we'll cover the basics of what your average business owner needs to know, and enough to make intelligent conversation the next time you find yourself surrounded by geeks at a cocktail party.

## Cloud in a nutshell

Cloud Computing describes the delivery of software, computing resources (RAM, CPU, Storage space) and data as services available on-demand over the Internet. These services reside and operate from what is broadly referred to as the 'Cloud'. The 'Cloud' is simply a pool of dynamic resources, accessible remotely wherever there is an Internet connection, and is made up of various sets of physical hardware located in Data Centres all over the globe.

### IT as a Service

Cloud services are typically provided in utility form, much like water or electricity, meaning they can be turned on and off as and when needed. Need more processing power? don't buy a new machine, simply activate the CPU power you need from a pool of resources within the Cloud. Thinking about backing up your data? use Cloud software that stores data in a secure offsite location by default.

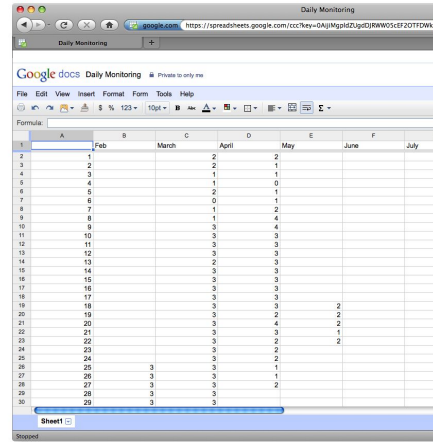


# The 3 most common applications of Cloud Computing

## 1 Software as a Service (SaaS)

This form of Cloud Computing will be familiar to most. SaaS is delivered via a web browser, with all the data storage and processing done within the Cloud (the dynamic pool of resources mentioned earlier). A good example is Google Docs, a suite of word-processing software tools similar to Microsoft Office. Google Docs provides all the same functionality as the traditional MS suite but from within a web-browser, and instead of using the users desktop or laptop machine, all data is stored and processed remotely by various machines located in the Cloud.

Other examples include Facebook, Twitter and Gmail.



## 2 Platforms as a Service (PaaS)

Lesser known by non ultra-geeks, Platforms as a Service is a way to rent the combination of hardware and operating systems required to develop and test software. These virtual platforms mimic the actual operating systems and environments that the software being developed would run on, and provide features to aid the development process, such as: testing, storage, team collaboration and many more.

Examples include Google App Engine, Salesforce.com and Longjump.

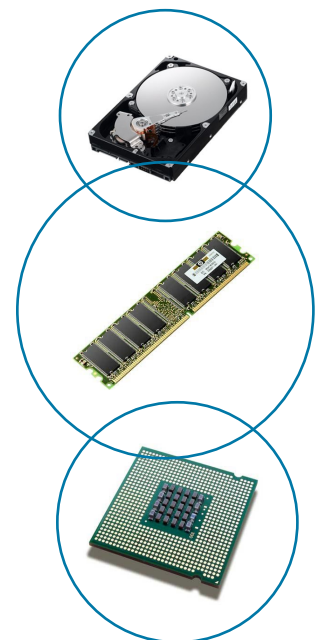


## 3 Infrastructure as a Service (IaaS)

Infrastructure as a Service is exactly that. Computing resources like RAM, CPU and storage space are freely available to you over the Internet, to use as you like. This might be to host a website, receive email, or backup data. These resources are grouped together to form a virtual server, which is much more flexible than a single physical server.

If you find yourself in a position where you need more RAM (lets say your website traffic just went through the roof), simply activate the RAM remotely via a web control panel, and it's available instantly. In the past you would have had to call your ISP, order more RAM and wait for it to be installed. Not ideal if you have high traffic volumes, or software that is critical to business success.

Examples include Amazon Web Services, Rackspace Cloud and RSAWEB Cloud.





# Tangible benefits for business owners:

## Reduced capital outlay

Cloud delivery is 'as a service', which means that in most cases that you are leasing on a monthly basis instead of buying, thus reducing the need to invest in expensive software or hardware. This also mitigates the risk should you wish to stop using any of these services. Many businesses prefer this model over the traditional ownership model.

## Less risk

Cloud Computing is inherently redundant. This simply means that there is an abundance of extra hardware, data backups and failover systems built into the architecture of the system to account for hardware and software failures.

## More uptime & Flexibility

In the case of sudden traffic spikes or additional demands on your server, additional resources can be added to your setup in moments - minimizing the risk of downtime. If the demands placed on the server subside, these additional resources can be turned off to save costs.

## Mobility

When all your data is stored in the Cloud, you or your mobile sales team can access it anywhere on the globe they might find an Internet connection.

Written and compiled by RSAWEB, a world class cloud solution provider.

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