USING THE CLOUD
Get it right for your business

USING THE CLOUD: GET IT RIGHT FOR YOUR BUSINESS

In less than a decade, the cloud has evolved from a concept that only techy people understood to something that's become the norm. The increase in consumer up-take for personal use has also made the cloud and its concepts easier for people to understand at a business level.

It's no exaggeration to say that cloud computing has revolutionised the way people do business; so much so that 88% of UK organisations have now adopted it in some form.

And this is where the fun begins. Because there are an infinite number of ways to implement the cloud for your business. Some businesses go all in, transferring everything to the cloud. Others stick with a hybrid solution; keeping the benefits of some on-site servers and technology.

There's no right or wrong way to do it; just what's best for your specific business. It's why you should always get an experienced, professional IT support company to pull together a technology strategy for you.

We've written this educational guide to explain the different options that are open to you. This guide might reinforce that your current set up is spot on. Or it might give you some powerful ideas to explore, to gain greater flexibility and productivity.

LET'S START AT THE BEGINNING

You've probably already got a reasonable idea of what the cloud is all about. But just to be sure, we'll start by explaining it in simple terms.

Cloud computing is the delivery of IT services like storage, servers and business software over the internet. It's everywhere in technology, so even if you're not using the cloud at work you almost certainly will be in other areas of your life. Emails, messaging apps, online banking and much more all work in the cloud, and the opportunities for instant communication are practically endless.

The vast majority of organisations are already using the cloud in some way. For most companies, the two biggest benefits of adopting cloud services are simplicity and cost.
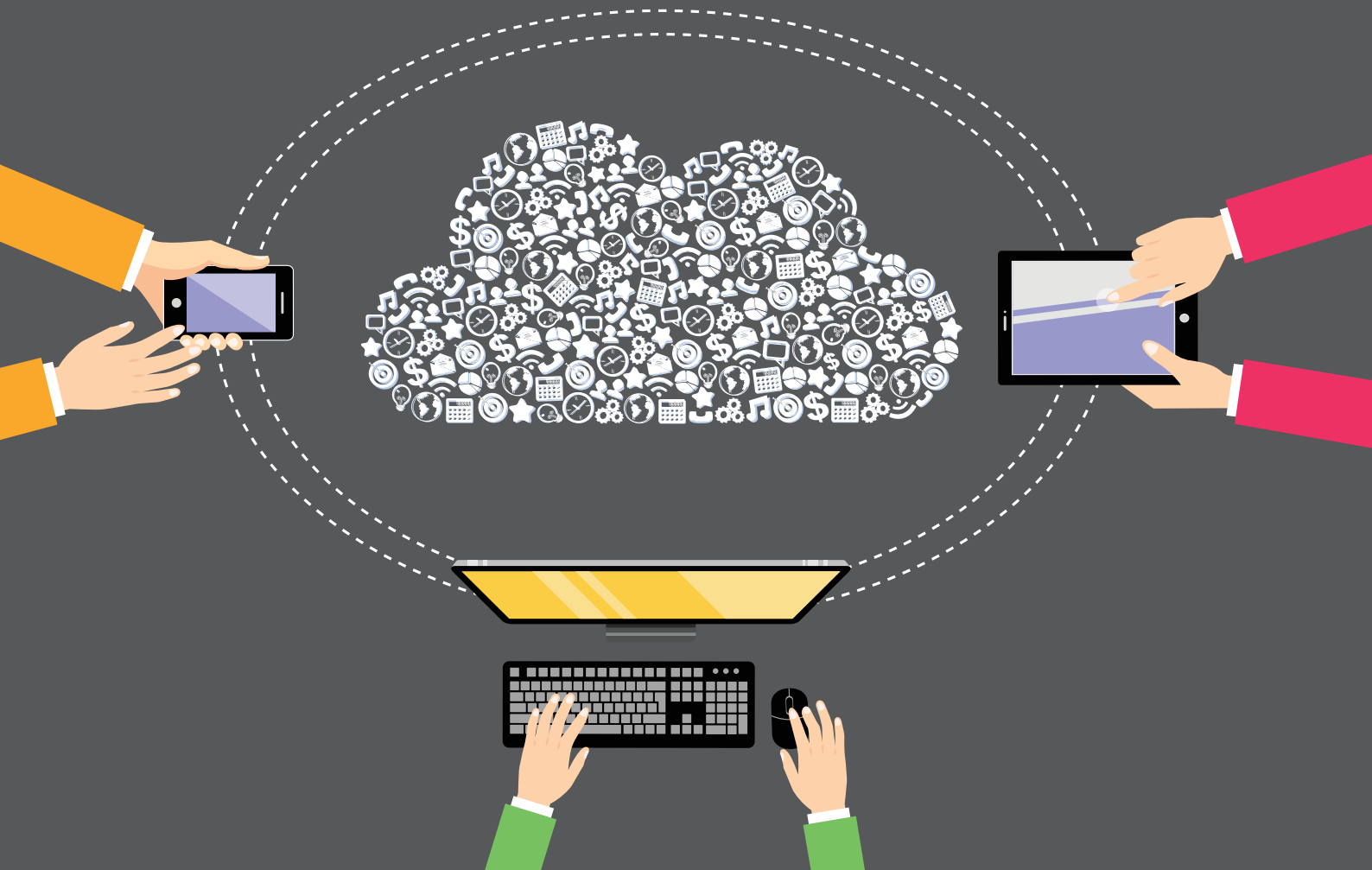
Moving to the cloud can also mean there's less downtime, not to mention all the productivity boosting benefits that come with being able to work remotely.

Organisations suddenly become more streamlined, more efficient, and more flexible than ever before. In short, using the cloud is great for business.

Of course, there are concerns too. Worries around security (we'll get to that later), loss of control and the willingness of long-standing staff to adopt a new way of doing things all play a part. And although most people now understand the concept of the cloud, there's still a lot of confusion around the different offerings and what they mean in practice.

Each type of cloud service and the method of using it comes with different levels of control, flexibility, and management. Understanding the differences between them, as well as knowing a bit about the different strategies used to bring them to life, are essential in the decision-making process.

DIFFERENT TYPES OF CLOUD COMPUTING SERVICES

Cloud computing services actually have quite a few different categories, including:

Infrastructure as a Service
(IaaS)

Platform as a Service
(PaaS)

Software as a Service
(SaaS)

Recovery as a Service
(RaaS)

Functions as a Service
(FaaS)

We'll explain the difference between them in a second. Together, they are often referred to as the cloud computing stack, because they work together to form a suite of services organisations can choose from according to their needs. The services build on each other to create a full experience, but they can also be used on their own.

Whether purchased individually or as a full-stack solution, there are lots of opportunities to save time and money whilst vastly improving agility.

IaaS

The most basic category, **Infrastructure as a Service** provides all the main building blocks for cloud based IT, allowing you to rent virtual machines, storage space and servers on a pay-as-you-go basis. The big advantage of renting hardware is that it enables you to scale up and down in line with your business activities, so during busier times you can request more server space.

It's a great low-cost alternative to having your own servers on-site and paying out for things that might not be needed all year round.

Benefits of IaaS:

• Reduces capital expenditure

• Pay only for what you need when you need it

• Access to enterprise-grade resources and infrastructure

• Easily scalable

PaaS

Platform as a Service enables organisations to create, develop and test applications without having to invest in the on-site infrastructure usually needed for development.

As long as an internet connection is available, team members can access all the software and data they need to keep working wherever they may be. With no in-house infrastructure, it eliminates worries about procurement, maintenance, security patches, resource procurement and other common IT headaches.

Benefits of PaaS:

- Facilitates strong communities and good team work

- No more upgrades

- Reduces capital expenditure

- Easy to deploy

SaaS

Software as a Service is the most common use of the cloud. It provides people with a complete software product, run and managed remotely by the service provider. Facebook is a great example of SaaS – all people need to think about is pasting updates and liking comments, while Facebook takes care of everything else.

Again, with all security patches and updates taken care of, there's no need to worry about maintaining the software or managing the required infrastructure.

Benefits of SaaS:

- Rapid scalability

- Software is accessible anywhere with an internet connection

- Eliminates infrastructure issues

- Customisable

- Bundled support and maintenance

FaaS

Functions as a Service is a new concept that allows users to build, run and manage application app functionality. It's based around the idea of "serverless architecture" and allows software developers to create and execute codes without having to think about building and maintaining an infrastructure. This option isn't going to be of interest to the average business, but those with a real interest in app creation and management are very excited about its seemingly limitless opportunities.

Benefits of FaaS

- Easy to test and deploy apps

- Only pay for what you need

- Rapidly scalable

RaaS

Computers are not infallible, and even with the best policies and software in place, things can still go wrong. **Recovery as a Service** helps companies keep their backups, disaster recovery and business continuity solutions all in one place, dramatically reducing the risk of long-term data loss and downtime.

Benefits of RaaS:

- Prevents loss of critical data

- Eliminates problems caused by damage to physical infrastructure (in the case of fire, floods etc)

- Cost effective, fast data recovery

- Greater flexibility on the types of backup required

DIFFERENT WAYS TO USE THE CLOUD IN YOUR BUSINESS

Different organisations operate and use data in different ways, which is why a "one size fits all" approach doesn't work. So, the cloud can be deployed in the following ways:

Public cloud

The organisation's entire computing infrastructure is located entirely off-site and managed by the computing company providing the service. Because it's easily accessible, this option is open to any authorised person, and provides access to all sorts of information and tools via the web browser.

It's particularly attractive to companies that:

- Don't deal with sensitive information

- Experience dynamic business growth and/or fluctuating demand

- Want to keep costs low

Private cloud

The organisation has their own cloud which is completely locked down to anyone outside, with all hosting and infrastructure done internally.

This is the highest level of security and control and is most popular with organisations that:

- Collect sensitive and highly confidential information

- Work to specific industry compliance mandates

- Require dedicated resources

- Experience stable, foreseeable growth

- Accept higher, but more predictable costs

Community cloud

Shared between organisations with a common goal, the community cloud is a model that can be built and operated specifically for a target group.

This solution is often designed for organisations working on joint projects and provides a central facility for communication and file sharing.

It's popular with organisations that:

- Regularly collaborate with others

- Are part of a network

- Work with different types of data

- Share information about leads and ideas

- Want to try out the cloud on smaller projects before committing to a total change

Hybrid cloud

The best of both worlds, hybrid services use both private and public clouds to utilise existing resources whilst delivering a greater level of flexibility. Infrastructure and applications are connected between cloud-based and on-site systems, providing scalable solutions along with the security needed for sensitive operations.

A hybrid cloud set-up is great for organisations that:

- Have dynamic, or frequently changing, workloads

- Want to retain control of some of their data whilst utilising new technology

- Need to satisfy specific regulatory requirements

- Collect both sensitive and non-sensitive data

- Prefer to move to the cloud gradually

SO, THE BIGGEST CLOUD QUESTION: WHAT ABOUT SECURITY?

It's understandable that some business owners and managers still have concerns about the security of cloud computing. Stories about cybercrime have fuelled paranoia, and while it's true that attacks from hackers and data thieves are at an all-time high, cloud based solutions can be as safe as traditional methods.

It all comes down to organisational approach. The physical location of data doesn't matter as much as the means of access.

Imagine two houses.

House A is a hilltop cottage equipped with state-of-the-art security cameras and alarms, while the other is a mid-terrace on a busy high street. Forget the toys... the security of each home depends entirely on the habits of the people living in them.

House A's inhabitants might have all the kit, but they sometimes forget to set the alarms and leave the spare key under the plant pot for the kids. House B, on the other hand, is inhabited by a far more security conscious family. The doors and windows are always locked, valuables are kept out of sight and they leave the lights on when they're going to be out in the evening.
Guess whose house is more likely to be burgled?

All the cameras and alarms in the world count for nothing if the owners don't make them a part of their daily routine, and it's the same with IT systems. Security starts from within the organisation, so it's important to make sure that all staff are up to speed on password safety, hacking scams and general data management.

WHAT NEXT?

Decisions about your IT infrastructure and way you protect your data are some of the most important you have to make. They will have a material effect on the productivity and growth of your business.

As a trusted IT support company, we don't offer a one size fits all cloud solution. Instead we put together the right solution for each individual case.

We'd love to audit what you're doing right now and see if we can save you money, or help your team get more done.

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