

Update your office for modern business with cloud computing

Cloud computing is the next step in productivity. There's a reason why Google and Microsoft continue to invest heavily on cloud computing infrastructure. Even Amazon is getting into the action, with its offshoot Amazon Web Services division. Ever wonder what the big deal about "the cloud" is and why that term gets thrown around often?

Cloud computing can allow you to:

- Backup and safeguard your data without needing an in-office solution such as a server
- Have a truly mobile office experience – take your work on computers outside your office, on your tablets and even smartphones
- Be more efficient. For example, not having to set up and maintain equipment (like workstations and a server) will supply you with a lot of money and time savings.
- Not worry about contingency plans and equipment (for your server) in case of a crash or disaster
- Not having to worry about learning complicated technical jargon, or hiring IT staff or devote an entire department to perform the setup and maintenance needed

While cloud computing is not without its disadvantages, the pros typically outweigh the cons and many businesses will find that cloud computing will allow for more efficiency, better collaboration and more versatility.

How can cloud computing work for me?

"Keep it simple."

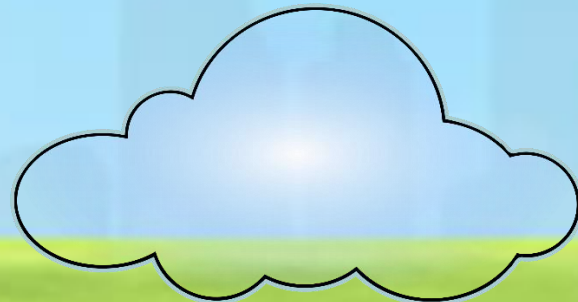
That's the old adage that most businesses run by to the best of their ability. Red tape, extra steps, and more time wasted are all reasons why companies are typically hesitant to try something new. Cloud computing allows you to shave off more hours from even your current workday. In a time where 10-hour shifts are becoming the new normal, can't you use a break like that?

"Well, we've always done it this way."

People used to travel across seas by boat. Now we do it by planes. We used to have long distance service on land lines. Now most people use tools like Skype, e-mail and Voice over IP (VoIP), often over cellular networks as even land lines and switchboard systems can be replaced with tools such as Skype for Business. The end result: lower costs and higher productivity.

Things change. It's not that they don't work. It's just that the alternative allows for more possibilities and better productivity. Like with anything new, there's always an adjusting period or a learning curve to it, but the rewards come soon after.

Fortunately, cloud computing isn't brain surgery. Hosting companies take care of all the issues like backup, server maintenance, and contingency plans such as the rare instance that a server goes down. It's the exact same thing that companies like Google and Microsoft do.



Hosting companies will have dedicated data centres with IT support staff not only ready to handle any problems that may arise, but to also answer your questions, so you don't have to be a computer expert to get started. With a low start-up cost and the high amount of support you get, switching to the cloud is easy.

How does cloud computing make my office “smarter”?

To answer that, let's start with taking about *agile* software development. Wikipedia defines agile software development as:

“...a set of software development methods in which requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. It promotes adaptive planning, evolutionary development, early delivery, continuous improvement, and encourages rapid and flexible response to change.”

This concept was taken out of the *Manifesto for Agile Software Development*, which was a response to the search for more lightweight development methods, and now serves as the standard for product development because of its efficiency. These same principles can be applied to make your office better.

Lightweight. Agile. Rapid. Flexible.

While you may not necessarily be developing or even interacting with software, you can still take some pages out of the software engineer's playbook and apply these attributes to your own office to make it compatible for today's informational challenges.

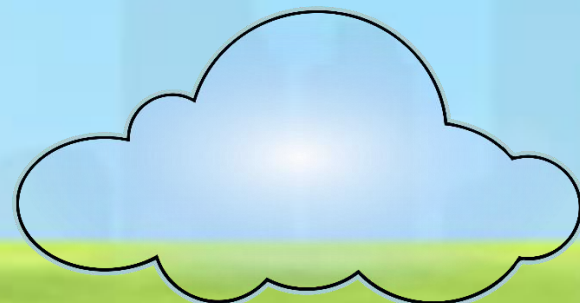
Work on the go

Part of being *agile* is to be able to take your work on the go. Let's say you're working on some reports, while you have a meeting coming up. You finally finish your spreadsheet report and relax because your report is ready for your presentation during the meeting.

All of a sudden, your manager revises your figures with some updated information he or she just got. While you need to attend the meeting, you also have to update the figures and present your report before the meeting is done. It would only take about 10 minutes anyway. It's times like these where being *flexible* is essential.

You can save your work from your workstation and then take your work with you – whether it be on a laptop, tablet or even smartphone. This versatility your smart office allows for, thanks to cloud computing, makes your work *lightweight* so you can finish on-the-fly and just in time for the meeting.

While listening in on the meeting, you start multi-tasking while participating in the meeting and also working on your report. They are depending on you to provide results at the end of the meeting, so finishing your report is urgent. One of the presenters gives you slightly modified figures again that you need to use, so you need a *rapid* way to incorporate that into your report. Fortunately, your cloud computing setup allows for such a task. It's just as easy as taking out your cell phone, and in 5 minutes, update your report without having to leave the meeting. Crisis averted thanks to your agile way of thinking.



This is just one situation where a cloud-based office is useful, but your smart office can be applied to so much more:

- Allow for cross-collaboration and make changes to files without needing to be at your desk or even in the office
- Keep important files in one centralized, secure place without having the need to physically move any components or equipment
- Have more control over your information and company projects by keeping files in one place and setting permissions so that no one can take sensitive information outside your office
- Set user groups and file access levels anywhere you are – without needing to be in the office or change sensitive server settings

There's a reason *agile* software development is still around and still uses these same elements that a smart office has: because it's been battle-tested in real life and it allows for better, faster, and more productive work.

Cost-risk analysis

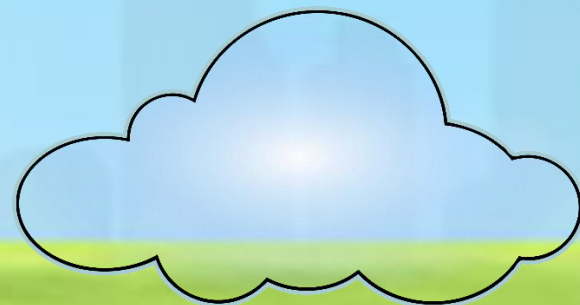
Of course, one of the most important questions a company asks before buying a new product or service is “how much will it cost?” It's a great question, especially when a product is supposed to help you keep more of your revenue. Fortunately, not only is cloud computing relatively simple compared to setting up an entire server infrastructure and the staff to maintain it, but it's also an affordable solution.

Let's rack up the amount of resources you would spend maintaining a server.

In-house server costs

- **Server:** an enterprise-ready server that is able to handle many users at one time will run you about £8,000 and up, even though it depends on the type of server and machine. While there's servers in all sorts of price ranges, a serious business requires serious equipment and a casual “backup” server won't cut it.
- **Software:** You need to purchase software such as Windows for your server, along with other software you want to use, such as Microsoft Office. The operating system will cost you above £300, while the business suite of Microsoft Office can cost over £100. Of course, the cost will be higher if you choose to install more apps and software.
- **Setup and maintenance:** You have a few options here. You can hire an IT company or tech agency to setup and maintain your server, which typically charge £200/hour and up, plus parts. Either that, or you can also hire your own IT tech. Payscale.com reports an IT technician earning an average of £18,424/year.
- Along with the investment in money, you also have to consider the time costs associated with buying a server, moving a server into a climate-controlled room, migrating and backing up important files, and configuring the whole office to run through it.

This is just a bare-bones estimate, since there's typically much more direct and indirect costs that goes into setting up a company server in the office. Compare this to a hosted server.



Remote hosting costs

- A monthly subscription, so if your monthly subscription for hosting cost £100/month, that would be £1,200/year.
- A good, stable Internet connection. One that will sustain your cloud computing (you don't want to skimp on this) can be purchased for £40/month (£480/year).

Yes, that's all there is to it. The £1,680/year you spend using the remote hosting cost example is less than just the server alone. You may have also noticed how much less steps cloud computing requires as well, which means less chances of things going wrong and less fuss. With the money and time you save (along with not having to worry if your server suffers a crash), cloud computing resolves a lot of current problems out-of-date offices may experience.

IT logistics

Remember how life used to be as someone setting up or maintaining your office server? The tasks associated with operating a server can be very monotonous and frustrating. They include:

- Ensure the backups are up to date and saving properly
- Something went wrong with the hardware, so you have to test out each known piece of hardware to see which is the faulty one
- Updating the server and software, in hopes that the new changes won't cripple it due to some unknown incompatibility
- Replacing of a hard drive in the server that just blew out...but not before replicating all the information from the old hard drive into the new one

This is part of the reality of daily server maintenance, which is why there is no way around not having IT help on-hand when you run an enterprise server in-house.

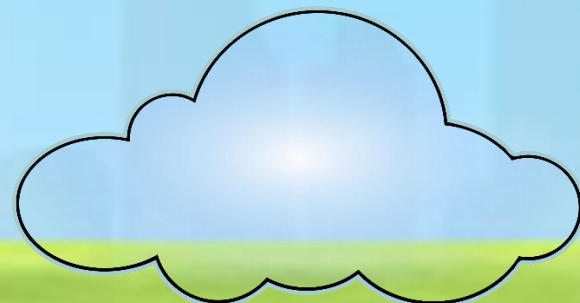
With cloud computing, you never have to fiddle around with equipment or have to interact with any equipment. While some people may feel like they have no control over their server operations only because they can't see or touch the hardware, it does resolve the problem of having to maintain servers by yourself along with the constant worry of dealing with it.

Hosting companies regularly have contingency systems set up in case something goes wrong, from dedicated IT staff, backup servers, backup data centres, and even backup generators. Considering that providing hosting services is their business, reputable companies will have devoted resources to their servers just in case anything goes wrong. It may not totally solve ALL of your technical problems (there's no real way to protect against all technical problems, cloud or no cloud), but at least you can rest assured with the layers of insurance present to keep your system running.

While you may feel uneasy at first not having the equipment in-house, you will certainly not miss the worry and time spent monitoring equipment for best functionality.

How about Software as a Service (SaaS)?

Software as a Service, while useful and can share many of same elements that cloud server computing has, is not the same.



Software as a Service is a subscription-based service that you pay on a recurring time period, so you can access your information online, much like with a cloud server. However, instead of having an actual application, the application is usually “built in” to your web browser for best compatibility. That way, it doesn’t have to worry whether you’re running a Mac, Windows, or another operating system.

Unfortunately, browser-based compatibility does have its drawbacks. Not only do you typically run the service out of a browser, reducing the functionality of the software (remember, it’s still a browser window with its own functions and commands that may interfere or invalidate certain SaaS features), but it also tends to be less powerful, as a web browser’s primary function is to assemble code like HTML into viewable web pages, not to create documents with fancy fonts and designs or crunch numbers on spreadsheets.

With cloud computing features like remote desktop or Citrix, you have the genuine and original applications you know and are familiar with at your disposal, such as Microsoft Word and Excel. These are the actual apps, and there’s no imitations or “just as good” substitutions. These applications are designed to do what web browsers typically can’t or are very limited in doing. For example, try making charts and reports on Google Sheets. While it can get the job done, it comes nowhere close to the functionality of Microsoft Excel and lacks a lot of features that someone can be very used to having in Microsoft Excel. A real power user or someone that expects a more detailed report would have trouble using Google Sheets.

With a cloud server, you have the convenience of having your information online so that it be accessed anywhere, combined with the original power that native applications provide, so there’s no compromise and assures compatibility regardless of your operating system.

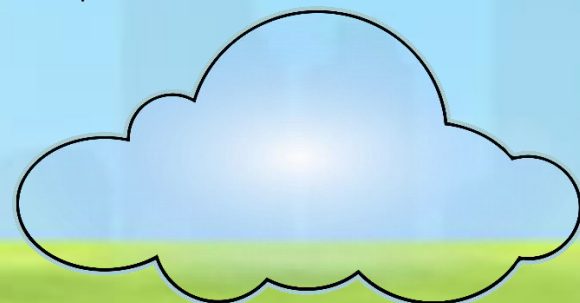
Security

A lot of people worry about disasters affecting their office servers, hackers stealing information or even employees stealing confidential files for unauthorised purposes. They even worry more when they can’t tangibly manipulate their own servers or don’t have their equipment in-house.

What about the e-mail you use, the shopping portals you use and the credit card/payment information you provide online? That’s right! These are all examples of outsourced cloud computing, and the fact that you use them must mean you feel that it’s safe enough to use. In fact, you can see how people are growing their online businesses without having to interact with anyone personally and often even not have physical brick-and-mortar stores. Such is the trust people have in the stability of cloud computing. Why not use the same technology to grow your business?

Cloud computing puts the power of administration in anyone’s hands, without needing to know complicated jargon or needing to know things like changing administration rights or modifying user groups. This brings security that was previously inaccessible to chief officers of the company that are not tech-savvy.

As previously mentioned, hosting companies come prepared expecting the unexpected, knowing that system outages or server crashes may happen and have contingency plans in place. Dedicated data centres equipped with backup systems gives hosting companies more resources to handle an outage of other interruption of service better than your typical office.



For security, there are security measures you can use in order to keep your server secure, such as using a virtual private network (VPN) or encryption so that third-parties cannot view your information, even if intercepted. There's also the innate security features a cloud server brings due to its configuration.

Some of the benefits are:

- Keep files from being moved off of the server. You have the option to keep all files within the server, while employees can still freely modify.
- Files are not stored on local servers. Therefore, no one can make unauthorised copies by downloading it to a flash drive or any other portable device. Setting a file "read-only" does not keep it from being copied.
- 2048-bit encryption and password login ensures that hackers cannot intercept or hack into a system.
- Disabling of outside media: you can decide to exclusively use thin clients, which typically don't come with extra drives. This helps prevent any detachable media from being used to take sensitive files.
- Viruses: since there's no local servers or hardware to infect, the likelihood of a virus spreading throughout your whole network is drastically reduced, and damage may be mitigated.

Different methods to make your office smarter

There's no "one size fits all" solution when it comes to cloud computing. Cloud computing is designed to be lightweight, yet very customizable with little turnaround time. There's a few methods to look at.

Skype for Business

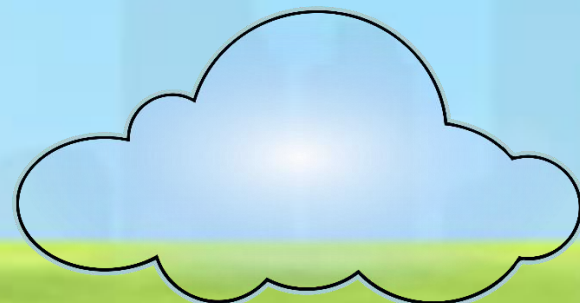
Formerly known as Microsoft Lync, Skype for Business is a place where team members can contact each other, through text, voice and video call. The virtualized environment within the cloud server makes Skype accessible from anywhere. You can also collaborate with people in meeting rooms, share files and view each other's computer screens. A useful feature is that Skype for Business can integrate with Microsoft Office, so there's no messy transition and changes can be saved and transmitted easily.

Pros

- Avoid long-distance call charges with this tool, regardless of where you're logging in from
- Don't miss on important updates and announcements, even if you weren't logged in at the time of the announcement using *Persistent Chat*
- Search meeting rooms by keyword (ex. "weekly report") and create notifications to track conversations
- Save on e-mail abuse by directly conferring with your team all together
- Compatible with Windows/Mac systems, and also available for your smartphone – iPhone, Android and Windows Phone

Cons

- Does not have support for applications outside of Microsoft Office
- Cannot use applications that are not installed on your system



Hosted Desktop (RDP)

A hosted desktop (also known as RDP or remote desktop protocol) is exactly what it sounds like: a remote desktop environment hosted by an out-of-house server. This server runs a pre-determined version of Windows (consult your hosting provider for more information). You log in remotely, and you can use the desktop like if the computer was right there in front of you. The server does all the processing and the work, such as graphics output and memory management. Then, the result is transmitted back to your computer, whether it's a regular desktop workstation or a thin client. The benefit of this is that no big processing power or expensive equipment is needed, since the server does all the heavy lifting. Then, it transmits what it has on its desktop back to you.

Pros

- Supports multiple users and multiple sessions, so more than one person can use the server at one time.
- Depending on the configuration of the server and your service, you can run more graphics-intensive programs (such as Photoshop, Autodesk Maya) without having to spend more on expensive upgrades
- Save on buying workstations or desktops – you can use a thin client (or even a properly refurbished machine that has been abandoned) in order to access the desktop, since remote desktops requires very little computing power
- Run any program that Windows can, as long as it's installed on the server
- Your work is truly mobile – The RDP app is available for Android, iPhone, Windows phones and tablets

Cons

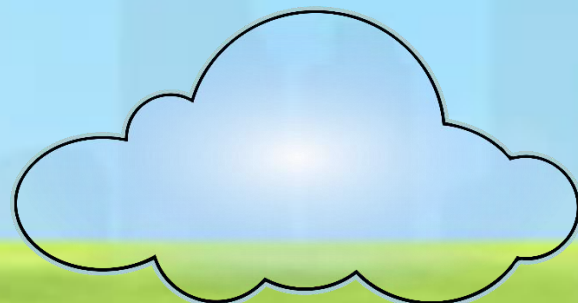
- This configuration is typically only relegated to Windows
- The desktop may be a bit difficult to use on a small smartphone screen
- Remote desktop servers may need some extra administrative attention in order for it to perform the way you want it to

Citrix

Citrix has a similar premise to a hosted desktop in that you log into a remote server and it does all the processing and tasks that an office desktop would normally do. However, it does have some differences. Instead of a desktop, you have a Citrix layer (their own desktop/menu) that can run applications, although the end result is basically the same. You still get the same desktop and have the same apps. While the behind-the-scenes technology is different, the end result is pretty much the same, with some added features.

Pros

- Interface makes it more mobile than RDP – be able to seamlessly move your data and applications so you can pick up exactly where you left off, along with GUI (menus) better designed for mobile device screens.
- Support for Windows and various other operating system environments, such as Mac OSX, Linux, iOS and Android so



you can use different operating systems or devices without having to worry about compatibility or not being able to access your work

- Use more peripherals than RDP, such as client-side (from your end) webcams and printers
- Citrix automatically configures and monitors servers for continual operation, so you just specify the servers to run on Citrix and let it do the rest
- Program allows for better graphics and speed than its RDP competitor
- Compatible with thin clients

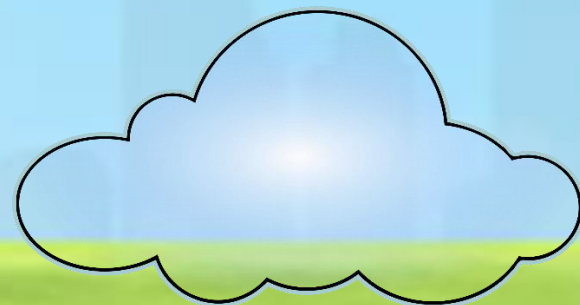
Cons

- Might not be compatible with as many Windows programs as RDP running straight from the server desktop

Before you decide to go with a hosting service...

It's important to look into a few things before committing to a cloud-based solution

- **Internet connection:** make sure your Internet connection is stable enough and fast enough. You don't need a T1 line to run cloud-computing services, but you definitely do want a stable Broadband connection. If your Internet connection happens to go down, you cannot communicate with your server, just like what would happen if you had an in-house server connection that was severed.
- **Contracts:** Some hosting companies require a contract during a set amount of time for you to use their service. Others do not. You have to read the fine print that comes with any agreement before you agree to any terms. Also, there may be SLA (service level agreement) provisions, meaning that they have to supply you with a certain standard of service (such as 99.9% uptime) or they are liable to pay or reimburse you as a penalty. However, there is no such thing as 100% server uptime, no matter whether it's in cloud computing or your office server.
- **What perks are offered:** Some companies are resellers of a product that is not theirs. Therefore, there is typically less resources and control that they have should anything go wrong, and act as a third-party between any service providers. A serious hosting provider has dedicated data centres monitored by an IT department of their own. A good provider has contingency plans in case something goes wrong, such as automatic data backup that seamlessly transfers over to take place of a broken hard drive, multiple servers and backup generators. Redundancy is a server's best friend, so the more backups, the better.



Afterword

This whitepaper is designed to give you a brief introduction into cloud computing. Now that you're more familiar with the premise of "the cloud," along with how it can help you, we're sure that you will be eager to switch so you can cut costs, be more productive and spend less time working and more time actually taking care of business.

We offer hosting services such as hosted desktop, hosted Citrix, Skype for Business, remote data backup and much more. We are not a third-party seller. We are an IT company with data centres in the UK. We pride ourselves in excellent 24/7 customer service, and using the latest encryption and technology to mitigate and meet any unexpected server problems, so that your service remains uninterrupted.

Feel free to email us at sales@30daycloudtrial.com for more information on our hosting services. Each business is different, so feel free to contact us to find out which service is right for you. Ask us about our 30-day free trial of Citrix. We also hate wasting valuable time, so there will be no pushy salesmen pestering you. There's also no contract and you can cancel your service anytime. Yes, we're that confident that we can help you run your business by meeting your IT needs.

