Breathe Easy
Private Cloud

Tailored for you!

TOP 15
Questions Answered

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IT'S TIME TO BUST SOME **PRIVATE CLOUD** MYTHS & MISCONCEPTIONS!

Yes, organisations are moving to the "cloud," but that can happen in a co-location setup or own data centre rather than a corporate Public Cloud.

Where you choose to run your systems matters and it's your choice. According to IDC, 85% of respondents say that they will move 50% of their cloud-based applications into Private Cloud. That's a big number, and you might be asking yourself, *"what exactly is the appeal of Private Cloud?"*

It's a highly customisable model that delivers outstanding security and control – two major priorities for businesses and schools. You most likely have more questions that warrant answers, so keep reading for answers to the top 15 most-asked Private Cloud questions we've received.

1 What exactly is a Private Cloud?

Private Cloud is an on-demand cloud deployment model where cloud computing services and infrastructure are hosted privately, which are often within a company's own data centre or co-location environment, often with a Managed Services or Support Partner, using its own systems and servers, which are not shared with other organisations, if compared to something like Microsoft Azure or AWS (Amazon). It offers your business or school better control, better security, complete flexibility and reduced running and operating costs with faster service response than Public Cloud. Managing it requires a higher level of IT Expertise, but that is what the support partner is for.

In general, cloud computing allows organisations to move compute power, data storage, and other services away from on-premises servers and onto remote servers that employees or customers can access via the Internet. A company that wishes to use cloud computing services may choose between a **Private Cloud** *(where cloud services are exclusive to the company)* and a **Public Cloud** *(where cloud services are owned and managed by a provider who also hosts other tenants),* or a combination of the two, known as a **Hybrid Cloud**.

At Breathe, we see the Hybrid Cloud option being very popular. Customers tend to move core systems into the Private Cloud data centre, keeping only the minimum equipment on site. Sometimes, this can be as an internet connection, firewall and WIFI.

There is a clear trend that has arisen, as a side effect of the Covid lockdowns. Many have chosen to reduce office space or even embrace a home working culture. Either ways, there are clear savings to be made and less responsibility, when you don't have to consider the floor space, the server room with the environmental monitoring, security, aircon, UPS, CCTV and more. Additionally, the Private Cloud provider will offer you improved connectivity and SLA's, power, UPS, Monitoring and Security with faster technical support response time. No longer do they need to travel to your office when there is a server problem. As long as you have a safe and reliable internet connection, you're working, from the home, the office or even your local coffee shop. ***Which means you can now work form anywhere at any time.***

2 What are the components I need to have a good Private Cloud setup?

You start with a hardware base and then virtualization and storage. In other words, your hardware servers running your virtual servers and storage appliances, switches, backup etc. Your storage can be located on a SAN or internal disks on a server. Most of our customers actually start with the idea of Private Cloud and then we help them relocate the essential components to the Private Cloud data centre, and retain the parts of the system they want or need on site. This architectural design often leads to the Hybrid system referred to earlier.

Additionally, you need to consider your Internet Bandwidth, Security on premise and in the Private Cloud and then finally your backup and disaster recovery.

As an example, your system could look like the following:

Example – Reducing Office Space

On Premise

- Internet connection with Router
- Firewall
- Network Switch
- WIFI
- UPS (We still need to protect the equipment)

In the Private Cloud Data Centre

- Bandwidth selected on requirement. No need for internet contracts
- Firewall
- Switching
- Physical servers with Virtualization such as HyperV, Citrix Xen Server or VMWare
  ***Servers used for authentication, group policy, data, applications, Printing Storage Appliance (Although storage could be local on your servers)*
- Remote Access Server or Hosted Desktop

In Public Cloud

- Office 365 with Email, SharePoint for Intranet and Data Storage, MS Teams
- Cloud Email Security
- Cloud Secondary Disaster Recovery Copy of Backup
- Cloud Telephony Platform

On your Desk

- Laptop
- VOIP Phone Handset

What features and services come with a Private Cloud package?

Features:

- Secure location with access control
- 24/7 Monitoring of Equipment
- 99% Uptime Guaranty on Connectivity
- Industry Leading IT Support SLA's
- Monitored CCTV and Alarm System
- Tempered Glass ensuring visibility of Racks
- Air-conditioning
- Environmental Monitoring
- UPS Power
- Dedicated Rack Space

Services:

- Breathe can help you design the ideal IT topology, fully Cloud or Hybrid
- We provide a complete service that includes the decommissioning of systems
- Recommissioning in the Private Cloud Data Centre
- End to End Technical Service to ensure the Integration works as expected
- On premise IT Support for your staff when the new system goes live *(or on call if they are home working)*
- Once it has gone live, your infrastructure support is faster than ever before as our engineers are located on the same premises

3 The industry is saying Public Cloud is the way of the future – Private Cloud seems the opposite of that?

Public cloud is suitable for some organisations and system and maybe not for others. For example, the nature of a consumption based charge model, which Public Cloud uses, makes it suitable for large growing companies and workloads, as it can expand on demand.

However, for schools or small business, that charging model is not always realistic or cost-effective. Often very complicated to manage too. In many cases you could also get locked into that vendors services and way of working. It then becomes very complex to migrate to another provider or move back to on-premise IT. A Private Cloud is still agile and can change on demand, but offers a more simple approach and reduced, more controllable and predictable costs. These are mostly fixed costs too, so you know what to expect. Your cost doesn't fluctuate based on use, as you see with Public Cloud.

4 Why are companies moving certain applications and workloads back to Private Cloud?

It's true, IDC has found that 80% of organisations have moved applications out of Public Cloud and back to Private Cloud. Part of the reason lies in organisations having incorrect assumptions about Public Cloud costs, believing it's more cost-efficient than it is. While it certainly can be, the additional costs associated with staffing, performance remediation, and security gaps can add up. You can read all about these reasons here.

Not to mention, most, if not all, businesses or school workloads fall into the "predictable" category. These workloads are used all day, every day. Things like email, Big Data, analytics and others fall under this category. On average, 75% of all workloads are predictable, but for many, it's even higher, prompting more businesses and schools to run them where they run best: **Private Cloud.**

5 Should I choose Private, Public or Hybrid Cloud?

Private and Public Cloud models have their own benefits, but for the most part, Businesses and Schools tend to get the most value out of Hybrid models, using specific components of each of these models.

As an example, your off-site backup and servers probably work better in Private Cloud. However, your email anti spam solution, CRM or Office 365 definitely belongs with the Vendors Cloud Solution, which most likely uses public Cloud.

And that's the point. For your CRM vendor it will absolute make sense to use Public Cloud. The Public Cloud is an excellent place for unpredictable workloads that need a high level of expandability to support them. However, you can't keep tabs on your Public Cloud 24/7, and it's far less customisable than a built-for-you Private Cloud.

The important piece to keep in mind is picking the correct Private Cloud platform that will make the move to hybrid easy. From there, you can start slowly moving resources and expanding to a Hybrid Cloud model, allowing you to negotiate between private and Public Clouds.

Another key message here is to use a good network architect to help you design this system. Breathe can provide this assistance if you require it.

6 Are there issues I might encounter if I go "all in" with Public Cloud?

The Public Cloud definitely has its place and has done wonders for organisations. And for the right workloads, it's a good solution. That said, as you evaluate your next steps with the cloud, keep in mind that putting all your eggs in the Public Cloud basket might result in some of the following challenges.

- **Data gravity:** Applications have to go where the data is generated. Traditionally, moving data from its generation point to where it's needed can be costly and time-consuming.
- **Regulatory concerns:** GDPR and other regulatory hiccups can severely limit your ability to even use the Public Cloud and place data there, making it less reliable.
- **Loss of control:** Working with Public Cloud requires a lot of trust, but not a lot of control. Plus, you won't be able to deploy or fully protect custom applications.
- **Unpredictable costs:** Unless you have a never-ending IT budget, you'll want a cost-effective cloud. Exit charges and getting data out are costly. Without proper visibility, organisations won't even know what's driving their cloud costs.

However, Public Cloud is an excellent solution to grow into! Rather than choosing Public Cloud as your one and only cloud solution, you can start with a secure Private Cloud and slowly move applications to a Public Cloud as growth demands. A well-built Private Cloud would also allow you to move to hybrid when ready.

7 Which applications and workloads are commonly run on Private Cloud as opposed to public?

To put it simply, Private Clouds are commonly used for predictable workloads, and Public Clouds can support unpredictable workloads. Sounds simple? It is, but here's the kicker: according to IDC, predictable workloads account for a majority of workloads and choosing to run these workloads in the Public Cloud can be twice as expensive as private.

8 Can I tailor a Private Cloud to my needs?

Absolutely yes. Your Private Cloud is built to meet your unique needs and goals. Building your own cloud means you can customise it to deliver the security, backup, networking, and connectivity standards you need. By contrast, a Public Cloud is generally a one-size-fits-all solution, which, in essence, doesn't fit the majority of businesses or schools. With Private Cloud, you can customise your services and applications as much as you want – whilst maintaining even the most stringent security requirements.

9 How does my IT Maintenance change if I move to Private Cloud?

The simple answer is that your systems still need to be maintained. From Windows Updates, Software, Firmware updates along with Security Scans etc.

Pro-active maintenance is as important as ever. Especially with the amount of Cyber Security incidents happening in today's online world.

It does mean faster responses as the engineers no longer require to visit your site. The IT support is now mainly used for your end user support.

10 A Private Cloud sounds complicated. How long does this take to install and setup?

It's among the easiest cloud models to adopt.

As an example, our team could decommission your systems on a Friday late afternoon, deploy and Test on a weekend and your staff are working as usual on the Monday.

Some pre-planning is required behind the scenes and we prep your data centre location with all the services you need prior to the move.

Additionally, Breathe offers a personal IT relocation service with all the correct packaging, vehicles and insurance, for total piece of mind and minimal hassle.

11 Just how secure is Private Cloud, really?

Of all cloud computing models, Private Cloud is known as the most secure option, but it needs to be built that way. And if the infrastructure you build it on top of is secure, you'll be in much better hands. Hyper-converged infrastructure utilises a security-by-design approach, meaning security standards and practices are woven into its code, so your Private Cloud will be set up for success.

12 Does having a Private Cloud mean I won't have access to Public or Hybrid Clouds?

By reviewing your setup and designing the topology, you can build in all the required security controls and processing. At this stage we can include some Public Cloud based vendor solutions to secure your systems such as Office 365 Email Security.

13 Got any juicy stats to substantiate these Private Cloud claims?

Oh, you know. Just a few.

1. 79% of IT leaders are investing in Private Cloud
2. You can save 60% on IT operations with Private Cloud
3. 50% of applications will be on Private Cloud within 2 years
4. 72% of businesses use some kind of Private Cloud

14 Which organisation sizes benefit the most from Private Cloud?

Organisations of any size can use Private Cloud! Here's why: it all starts with a powerful hyper-converged infrastructure foundation. From there, your priorities and challenges will determine your next steps. Got backup and disaster recovery nightmares? Address those first. Then, you can add automation and self-service to simplify your game plan. Curious about micro-segmentation? Add that later! The point is, you can fine-tune your Private Cloud to fit your needs. There's no one-size fits all!

Some examples are:

- Larger businesses reducing cost and office space
- Smaller businesses that need system and don't have the connectivity or server room space
- Smaller businesses or schools that need off-site backup
- Schools with completely outsourced IT
- SME Businesses that have adopted a home working scenario or have field based staff

15 What can you do to mitigate my risk?

We have been providing IT Support and Systems Integration since 2003. We offer extensive experience in building and supporting networks.

Our business has high level partnerships with many of the Public Cloud solution providers. We have an extensive track record and many references.

Finally, we offer a 3-month trial for all Private Cloud agreements. If it doesn't work then we'll put it back at no charge and we won't hold you to any contracts.

Private Cloud Vs Public Cloud

Why Schools and small to medium enterprises favour Private Cloud:

- Private Cloud is a Cloud Setup or Co-Location hosting that is not part of a large public platform.
- It can be set up with your Trusted IT Support Partner, which ensures the safety of the hardware and the data. They understand how your system work and how to integrate the system, which reduce any downtime.
- You own your hardware, software and applications and therefore you can define what you use and how much to use. There are no issues around data ownership.
- Migrating to a cloud system such as Amazon or Azure is costly and Complex. Moving to another if you are unhappy is even more costly and complex.
- You get direct instant access to your hardware and data whenever you require in the comfort of our office or home for as long as you require.
- In disaster situation, office space can be provided for access to data, including internet access. (Pop up office).
- It is significantly more cost effective than the likes of Azure or Amazon, although we are able to supply this option.

Benefits of using the Breathe Easy Private Cloud offering:

- You can reduce your office space.
- There is no need for a dedicated server room.
- You no longer need the air-conditioning, power, UPS, Racks, Environment Monitoring.
- The cost saving from a 1GB leased line alone will pay for the Private Cloud Hosting, Making it a 'No Brainer'!
- Less local office security required, systems but processes too!
- Additional security is achieved, as there is no IT and data in the building if your school or business is targeted.
- More flexible office space becomes an option.
- Your organisation is no longer attached to the IT. ***You can work from anywhere.***
- Improved Business Continuity.
- Less inconvenience in testing the business continuity and disaster recovery annually.
- The solution provides you with the cost savings as you no longer have the requirement in the office.
- The solution is more cost effective than traditional co-location in data centres or using public cloud.

Our Cloud Services Offering:

- Cloud Telephony
- Secure Web Hosting
- Hosted Apps
- Off-site Backup and Disaster Recover
- Business Continuity
- Office 365 Including SharePoint
- Office 365 Backup
- Email Security
- Office 365 Security/File and Folder Scanning
- Virtual Firewalls
- Private Cloud and Co-Location Hosting of IT's Equipment
- MS Azure

The bottom line? The sooner you start, the faster you'll get there. Test drive hyper-converged infrastructure to start your journey, then contact us to get set up with Breathe Easy Private Cloud, tailored for you.

If you're considering partnering with a Cloud Computing Provider or would like more information regarding our services give us a call.

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