PUBLIC, PRIVATE OR HYBRID CLOUDS?

WHAT'S BEST FOR MODERN BUSINESSES?

PUBLIC CLOUD

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The services and storage are owned and operated by a third-party provider and are delivered over the internet. You will share the same storage, hardware, and network with other cloud 'tenants', with accessibility available from anywhere you have an internet connection.

Public clouds often include web-based emails, online storage and office applications, as well as the usual storage and development environments. The most popular public cloud services include Microsoft, Google and iCloud.

Due to the large infrastructure and offerings, public clouds typically have massive amounts of space available, which is perfect for scalability.

ADVANTAGES

- No maintenance - the service provider covers the maintenance.
- Removal of Capex – the hardware element is part of the rental.
- Lower costs - only pay for the services you use.
- High reliability - a large network of servers mitigates failure.
- Almost unlimited scalability - resources are available to meet your business needs.
- Compliance – Many of the main public cloud providers are now fully compliant and have UK data-centres – it is also worth noting that if you use Microsoft365 you have an added layer of compliance available to you.

DISADVANTAGES

- Cost management - it is imperative that you work with a cloud/managed service provider who can monitor all aspects of spend
- Inflexible - you don't have the complete freedom as owning your own cloud.
- Lack of customisation - The multitenancy aspect of the public cloud does reduce the potential for any customisation around your business.
- Lack of internal resources /expertise can create gaps in knowledge

PRIVATE CLOUD

Private clouds are hosted resources used exclusively by a single organisation, either hosted at your organisation's physical location or by a third-party provider. But unlike public clouds, you are the only one with access to the services, with firewall protection.

These services are often used by public sector organisations, financial institutions, legal sector clients and private organisations looking for enhanced control.

An additional benefit to private clouds is the control offered compared with public clouds, making it easier to restrict access to valuable or private assets, whilst being able to move data and applications where you want, whenever you want.

As it isn't controlled by an outside vendor there is no risk of sudden changes that might disrupt the company's entire infrastructure, nor be affected by the provider's system downtime.

ADVANTAGES

- Increased flexibility - can be customised to suit your organisation's specific needs.
- High scalability - a similar scalability level as a public cloud.
- Total control - you are free to build and configure your cloud in any way you like.
- Improved security - higher levels of control and security as resources aren't shared with others.
- Dedicated architecture - although there is cost involved a dedicated infrastructure is appealing to many.

DISADVANTAGES

- Slow scalability - difficult to scale requirements quickly should the needs arise.
- Cost - the exclusivity comes with increased cost, with a large capital outlay.
- Under utilisation - you must maximise utilisation not to waste space nor money.
- Whether your own or col-location you always need to spend on technology - this can be expensive and mean that you are behind the curve.

HYBRID CLOUD

A popular option is a hybrid cloud, combining the on-premise infrastructure of private clouds with the flexibility of public clouds to deliver the greater advantages of both.

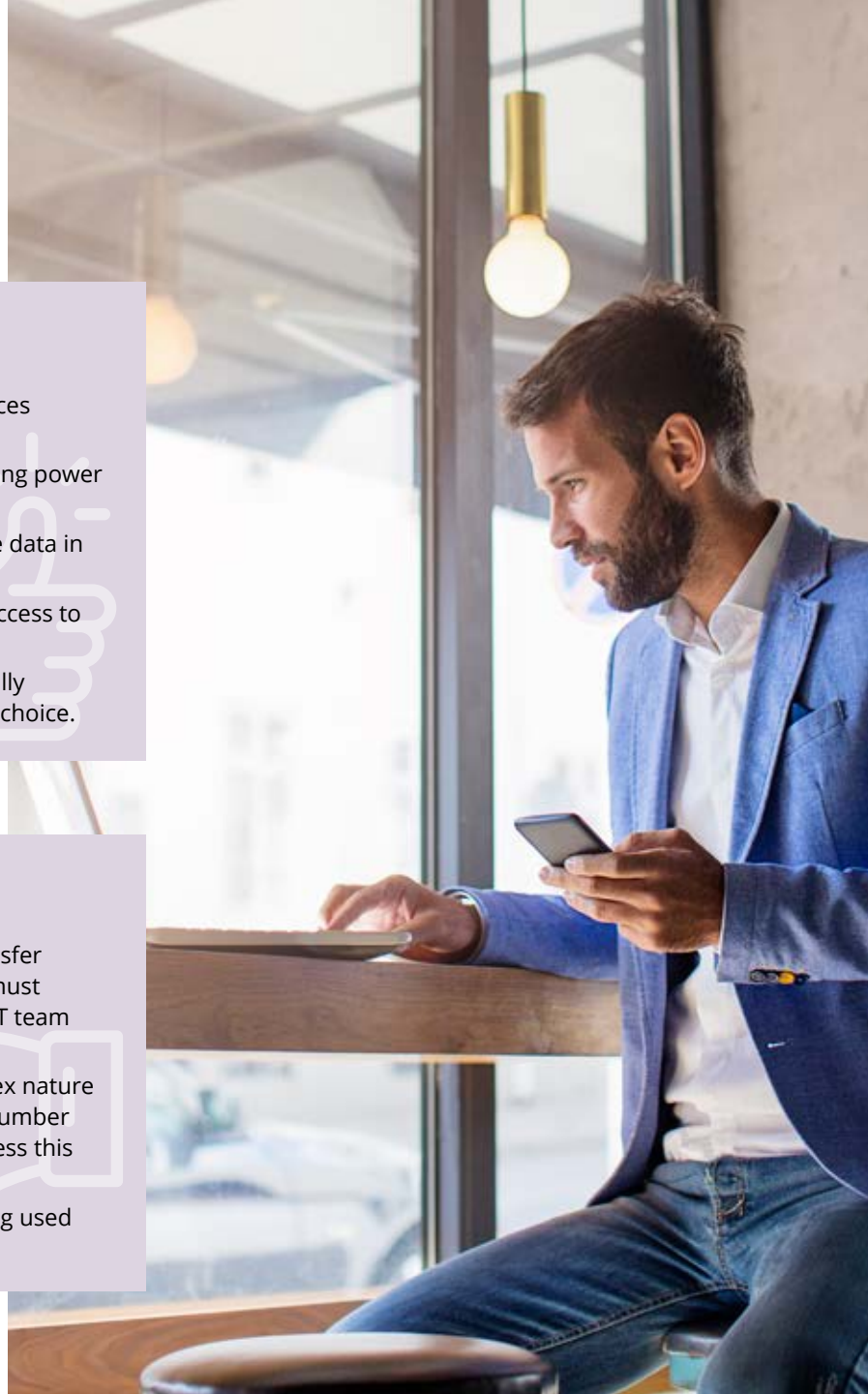
You can use the public platform for high-volume but low-security needs such as email, and the private clouds for sensitive, business-critical information like financials.

ADVANTAGES

- Flexibly - you get to take advantage of both resources available.
- Cost-effectiveness - you only pay for extra computing power when needed.
- Control - your organisation can keep your sensitive data in private infrastructure.
- They are usually a good mix of costs savings and access to new technology
- For those who have older applications and don't fully understand app dependencies, this is an excellent choice.

DISADVANTAGES

- Network complexities - the need for fluid data transfer between public and private networks means you must have a complex system in place, you need a solid IT team available to organise a hybrid cloud.
- Overly complex security issues - Due to the complex nature of hybrid clouds security has become the client's number one concern. Processes need to be robust to address this concern.
- Optimising cloud spend - with multiple clouds being used there could be a spend issue



ADDITIONAL CONSIDERATIONS WHEN CHOOSING CLOUD COMPUTING

SECURITY

Your data security is an important consideration when choosing your cloud deployment system. Data visibility, controllability, and safety all come down to the type of data you want to store in the cloud.

You will also need to consider your security concerns, public cloud services like Microsoft commit to security by spending $1 billion a year on cybersecurity, depending on the data you keep this may be secure enough.

We would recommend a public cloud for general data storage for emails, pitches, spreadsheets and the such as it offers enough security, whereas if you're in a more regulated sector it will be worth springing for more robust security through a private cloud.

COMPLIANCE

GDPR and data protection plays an important role in your cloud storage options. When choosing your software deployment solution, it is worthwhile researching their standing on data security. Ensure your consumers are aware of the data you collect and where it is stored.

International firms must take into account data transfer across countries, as the law is different for each country so discretion must be taken. Consider the data subject, necessity of the data transfer, and any previous binding agreements.

ARCHITECTURE

Remember to consider how the cloud's architecture will be incorporated into your workflows both now and in your company's future. If your organisation is heavily invested in the Microsoft or Google services universe, it may be worth choosing a licensing that relies on those services for ease of integration.

You will also want to consider the storage architecture, especially the options for frequency of storing and retrieving data, a hot vs. cool storage system.

Hot tier storage has higher storage costs but the lowest access cost, including data that needs to be accessed frequently or staged for processing, whereas cool storage has lower storage costs but higher access costs, such as short-term backup and older media content.

Cloud computing has changed the way many companies do business in ways most of us can't even imagine, by understanding the difference between cloud computing and deployment options you can identify which solution is the right fit for your growing business.

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