Cloud storage or local servers?

A brief guide to help you choose your IT future

Modern businesses must make a simple choice on infrastructure: in-house server or data storage in the cloud?

But things are more complex than they appear. That's why upgrading your business's IT backbone requires a deeper dive.

Instead of upgrading or replacing existing infrastructure with new models, savvy businesses are investigating alternatives ways to reduce overheads, improve productivity and streamline communication. But making the wrong choice can prove costly.

To help businesses make the right decision, we reveal the pros and cons of cloud and in-house servers, as well as how to choose between them. We also discuss the 'alternative' way of adopting a hybrid approach.



3 options explained

When it comes to servers, your business has three options:



Dedicated local servers:

For small businesses, running your own servers is highly convenient, particularly if you are set up in a single location. If your internet connection crashes, you'll still have fast and secure access to your data.



The cloud:

Cloud users get remote access to server farms (maintained by the provider) that can provide storage, compute, hosting and other services. No matter where they are in the world, users can communicate and collaborate.

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Hybrid approach:

Get the best of both worlds with a combination of dedicated onsite servers and remote cloud services. This is a favorite among organizations with strict data-storage and data-sovereignty regulations, especially when storing confidential data that must remain within a particular country or jurisdiction.

Whether it's down to personal preference or company policy, each option is worth investigating.

You might prefer to use the cloud for research, document storage and data analytics, while keeping in-house servers for any sensitive data.

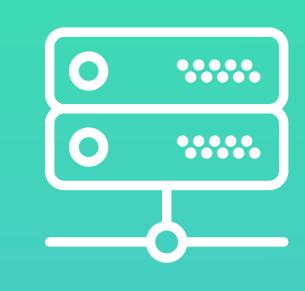
You might also find that hosting all your data on in-house servers and then backing it up on a cloud server (or vice versa) is the ideal solution.

#1 Dedicated local servers

For businesses that want complete control over their data, as well as local, internet-free access to a 'private cloud' by local area network (LAN), dedicated servers should be top priority. Their biggest advantage is unhindered visibility and accessibility to business data, and you can access it with no latency.

Best if you want to:

Get full control with a local area network



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Dedicated servers offer:

- Control: Full local control over data and security policies.
- Offline access: No internet connection is needed to access your local servers by LAN.
- Uninterrupted digital access: Where slow internet will not affect access speeds.

There are some drawbacks though:

- Data loss: To prevent data loss due to fire, flood, power surges and outages, and theft or criminal damage, strong backup and disaster recovery policies are a must.
- CAPEX: Capital expenses can be high, as you may need to over-invest in servers to provide capacity only needed at peak times.
- **OPEX:** Operational expenses can also be high, as server rooms require power, cooling and expert staff to operate and maintain the hardware and software.

#2 The cloud

Public cloud servers provide real-time access to your information on any device, in almost any country, proving a revelation for businesses that rely heavily on collaboration across geographical locations.

Forget about physical storage space and electricity bills – the company hosting your information on its servers handles everything.



Best if you want to:

Access your data at any time, on any device

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Dedicated servers offer:

- Scalability: Easily scale apps and services up or down on the fly to meet spikes in demand and manage troughs.
- Global access: Access your data in real-time anywhere, anytime.
- Low maintenance: Don't worry about office space, maintenance, cooling systems or even – depending on the service – backup and disaster recovery preparation.

There are some drawbacks though:

- **No offline access:** The cloud doesn't offer LAN or direct offline access.
- Connection sensitivity: Depending on the speed of the user's internet connection, there may be connectivity problems that can interfere with data access.
- **Cost sensitivity:** While allowing for considerable savings, the costs of the cloud can quickly add up if you're purchasing additional services or scaling in real-time to meet demand.

#3 Hybrid approach

If you want the best of both worlds, the hybrid cloud allows organizations to choose elements from both the public and private cloud. That means you can host your e-commerce platform on a private cloud but keep all your marketing collateral (non-sensitive material) on the public cloud.

Best if you want to:

Get the best of both worlds



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Hybrid cloud offers:

- Flexibility: Mix and match your services to gain maximum flexibility when deciding where to host your data and apps.
- Fast innovation: New products can be quickly prototyped and developed in-house, then spun up on public cloud servers for testing.
- **Risk management:** A hybrid environment allows businesses to test workloads and business processes on-site before offloading them to a public cloud provider.

There are some drawbacks though:

- Strict security: Security policies must be strictly enforced both locally and on the public cloud, requiring strong systems and constant vigilance.
- Network complexity: Seamless data transfers between local and remote server farms are a must, and providing access to mobile users can make network operations more complex.
- Higher costs: As it's paid for on demand or by subscription, a hybrid approach is potentially more expensive than a public cloud service.

Deciding what's best

Whatever decision you end up making, it is crucial that you do your due diligence beforehand and discuss every option with your company's key stakeholders. This should include not just the IT and finance departments, but also sales, marketing and HR.

Ask these five questions:

- 1. How much storage and compute do I need?
- 2. Are my data needs consistent or volatile?
- 3. Do I have the physical space to install local servers?
- 4. Can I make the capital investment needed in local servers?
- **5.** Is my operational budget flexible enough to cover the varying costs of a cloud subscription?

Finally, you need to evaluate all the other potential costs and benefits, such as licence fees, warranties, server and application administration and support, broadband fees, backup and recovery costs, and power and cooling expenses.

The choice is yours

Deciding to go with the cloud, dedicated servers or a combination of both depends on a range of factors including cost and security. Fortunately, the technology revolution shows no sign of slowing, which should make the choice even easier in the future, as costs decline and the options expand.

