CLOUD SERVERS vs SERVER COLOCATION

Lately, there has been an explosion of interest in cloud servers; e.g., Azure and Amazon AWS. That's because cloud servers are relatively easy to set up and manage and require no upfront investment.

But are they the right move for small and midsize businesses and non-profits? Or is colocating your servers a better option?

Each of the options has risks and benefits. We hope this brief paper will provide information you will find helpful in assessing the best move for your organization.

Here are three issues to consider.

Control

With colocation, the customer controls both the hardware and the software.

Cloud servers provide customers with control over the software but not the hardware. This enables customers to shift both the responsibility and the work required for hardware.

It should be noted that, because cloud servers run in a shared environment, it is not clear what hardware a customer will have access to at any given time. Cloud server performance can vary, even across one provider's platform. Amazon AWS, for example, is deliberately vague about the actual performance of their EC2 cloud servers, which gives them more leeway with the hardware configurations they use.

Security

The security of colocated servers is well understood. They are subject to natural and man-made disasters and redundancy is always a good practice.

Cloud servers, on the other hand, are relatively new. There is simply not enough information to determine the likelihood of security failures or their impact.

In addition to the same risks that colocation entails, the cloud server security risk falls into five categories[i].

1. **Shared access** Will a flaw enable another customer or hacker to access your information?
2. **Virtual exploits** include server host only, guest to guest, host to guest, and guest to host.
3. **Authentication, authorization, access control, and data protection** What are the vulnerabilities of the provider's choice of these key aspects?
4. **Availability and loss of data** Cloud providers have had outages and data has been lost.
5. **Ownership** Many cloud providers require that the data is the provider's, not the customers. What uses might a provider make of your data?

Cost

Typical applications (e.g., QuickBooks) require a server with a redundant power supplies, 24/7 support, four core processors, 16 GB RAM, and two TB SATA storage.

The Dell lease price is about $50 per month. Colocating a single server in Appia's data center, including 30 Megs of bandwidth, is about $833 per year.

The following table shows the cost per year.

Amazon Cloud (m.4 large, Windows, reserved)	$1,611.96
Colocation	
Server Lease	$600.00
Colocation Service	$719.00
Bandwidth	$114.00
Total	$1,433.00
Difference	-$178.68
Percent	11.08%

As the table shows, the costs are almost the same, with colocation having about an 11 percent advantage.

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[i] See *5 Cloud Risks You Have to Stop Ignoring*
https://www.google.com/#q=the+5+cloud+risks+you+have+to+stop+ignoring