IS CLOUD THE RIGHT ANSWER?

What determines if using a cloud solution is appropriate?

Simply put, cloud computing is the delivery of information and on-demand computing resources (networks, servers, storage, applications and services) over the internet or the cloud. The cloud is just a metaphor for the internet and this terminology came about because computer network diagrams used a cloud symbol to represent the internet. The alternative to cloud computing is the traditional approach of using "on premise" computing resources, such as a local server or personal computer.

There are many myths and misbeliefs about the cloud, but like most things to do with technology, the reality is more complex and nuanced. So let's explore some of the main considerations when making a decision about moving to the cloud.

How good is the solution?

It is not a given that a cloud solution will be better than what you already have. There are many cases, particularly with first generation cloud solutions, where a solution originally designed for an on premise server was turned into a cloud solution resulting in serious compromises and delivering a solution with degraded functionality, features or usability.

Security

The fact that a cloud solution is hosted in a data centre with high levels of security, does not necessarily make it secure. The security of a cloud solution is dependent on a wide range of factors across several layers – physical, network, systems, processes, and data. It is not practical for an end-user to do an empirical assessment of the security offered by a cloud solution, so in lieu of this it is necessary to rely on the various industry standards that are applicable to cloud computing.

Data integrity

A cloud solution will almost certainly involve storage of sensitive data, be it personally identifiable information (PII) or other confidential information. The ability to maintain the integrity of this data is crucial. Best practice for maintaining data integrity includes data encryption in transmission and in storage, controls and limitations on administrator access and third-party access, along with policies for data retention and responding to data breaches.

Data ownership

Rights regarding data ownership, use and reuse, including intellectual property rights, should be considered. If there is a change of cloud provider, functionality to be able to retrieve data in a usable non-proprietary format becomes an important factor.

Access control

By its very nature a cloud solution is potentially accessible by anyone using a computer connected to the internet, so restricting access to authorised users is essential. This is achieved by using appropriate authentication protocols (password strength requirements, multi-factor authentication, token-based authentication, certificate-based protocols and device authentication). In addition, there is a need to be able to add and remove users and control what levels of access particular users have. Access to detailed audit logs of user activities is also a consideration.

Service agreement

The terms and conditions for delivery of the service are very important. Things for consideration include defined performance obligations, uptime guarantee and support arrangements. When there are problems to be resolved, there is a big difference between support by email with next business day response and a 24/7 online chat service.

Contract terms

As with any contract, the period of the contract, the fee structure (flat fee, per user fee, time of use fees, data usage fees) and early termination penalties all need to be understood.

Data location

It is important to know what geographic locations are being used by cloud providers for storing data. The use of two or more data centres in geographically diverse locations has relevance for redundancy, and knowing if the data is restricted to a particular country will determine if there are likely to be jurisdictional issues.

How good is your internet?

One of the most important considerations has nothing to do with the cloud solution itself. Cloud computing is reliant on a good quality, reliable, high speed internet connection. Issues with internet speed, quality, reliability or availability can have a serious impact on the ability to conduct business.

It's not a given that a cloud solution is the right answer. You need to be certain that it stacks up. ■

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TIPS

- Use a structured selection process to compare offerings, and include your existing solution.
- Get proof of compliance with relevant industry standards. See the standards published by the Legal Cloud Computing Association www.legalcloudcomputingassociation.org.
- Get documented details about security and compliance.
- Obtain details of the authentication options.
- Request clearly defined performance obligations, with details of how performance is measured and any enforcement mechanisms.
- Check for policies on data retention and responding to data breaches.
- Check the policies regarding data encryption and access by system administrators.
- Avoid jurisdictional issues by getting a guarantee that all data will be held within Australian data centres.
- Carry out an evaluation of your existing internet service.

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