At our BNUG meeting last night we had a very interesting mini discussion on Cloud Computing (CC) and below are my thoughts on some of the Benefits and Risks of using Cloud Computing.

First let me define what I understand the term "Cloud Computing" to mean:

The application and related business critical data exists on servers outside the physical and contractual control of the business. IOW, having a server(s) at a "co-lo" is not "Cloud Computing"

Benefits of using CC:

1) Ease of Setup and Maintenance:
    a. The application and related business data are managed by a 3rd party, your Application Service Provider (ASP)
        i. IOW the business does not need available local technical staff to install or update the application and related data.
        ii. Backup and data retrieval are part of the agreement with the ASP.
            1. A local replica of your data might be wise in any event!
        iii. Data security issues are handled by the ASP.
        iv. Lower initial setup and maintenance costs for some applications but this will greatly depend on the application and the agreement with the ASP.
2) High Availability :
    a. The system should be designed to be securely accessible from any Internet connection. In the case that your businesses Internet or network connection is down take your Wi-Fi enabled laptop to any public AP (the library, local coffee shop, etc) and keep on working.

Risks of using CC:

1) Security of business data:
    a. The life blood of any business, small or large, is their data and you are relying on a 3rd party, the ASP, to keep it safe from hackers, safe from competitors, readily accessible and restorable in the case of disaster.
        i. Can you trust the ASP? How do you know?
            1. Are you legally responsible if they screw up? Get hacked; expose your employee and customer data on the web?!
        ii. You can replace the building; the stock; the office server and PCs, but you cannot replace the data. Once it is gone you are out of business, period.
2) Connectivity to the "Cloud":
        i. While the uptime and reliability of many Internet Service Providers (ISP) have improved dramatically they all suffer from outages. Please consider the following scenario when your ISP is down for an extended period:
            1. CC environment – your employees all gather in the hall to talk about the latest sports news, the latest celebrity gossip, etc. How much is this costing you?!!!!

2. In-house application environment – your employees continue to work, continue to make plans, appointments, sales calls, etc. Your data is STILL accessible. Your business can still operate.
    a. BTW this is an excellent argument why it is a smart idea to have a 2nd ISP in place with an automatic switch over plan in case of primary ISP failure for business that relay on the Internet for real-time data, sales leads, etc.

3) Long term viability of your Application Service Provider (ASP)
    a. What happens if they go broke? Get bought out? Get hit with a cease and desist order from the local government where they happen to do their hosting? Suffer from a Denial of Service (Dos) attack?
        i. Let's assume that you have a local replica of the data.
            1. What good will it do you to have the data if you don't have access to the application anymore!! Not much.
                a. The only exception to this would be for a well know application, for example, MS Exchange or QuickBooks.
        ii. Do you have the resources and time to scramble to find an alternative ASP if one even exists?

In conclusion:

In case it is not clear I am not a fan of Cloud Computing for business critical applications for most small to medium size businesses. In my opinion the risks well outweigh the benefits. Hire a professional to advise, install and maintain your environment. You well be better off.

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