

## BCLMA Article

The Cloud meets business continuity and disaster recovery

Hosted Desktop's in the Cloud; a new perspective on *business continuity, disaster recovery, backups and restore*

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The rate of change within information technology over the past decade has been staggering and has started to significantly impact the types of technology solutions professional services firms opt for. Before AltaVista (who?), Yahoo and Google, searching on the Web was laborious. Now we can find anything from a great hotel in Europe to instruction about how to make a Margarita – all within a matter of seconds. Gone are the days of having to go to the office on the weekend or in the evening to do work or check emails. Today, we can connect to the Internet from anywhere at any time using almost any device: laptop, home computer, or iPhone, to name a few. I cannot imagine how we survived without all this innovation as it has made us so much more productive and efficient – yes, that's right - now you can respond to client emails or finish working on that client file while on the road, at home, in bed, and on holiday! (Not sure we signed up for all of this, but it's pretty impressive, to say the least). Say "Hello" to the New World of always being connected; say "Hello" to Cloud Computing.

Cloud computing can make many shiver a little since, on the surface, there appears to be more hype than reality. Ask someone to define cloud computing and you'll get anything from a blank stare to, "I use Facebook online – is that what you mean?" I particularly like the all-inclusive definition put forward by Eric Knorr and Galen Gruman from InfoWorld: "Cloud computing encompasses any subscription-based or pay-per-use service that is offered in real time over the Internet." So to us, as mere mortals, it can mean anything from paying to having your backups automated and performed online or hosting your email to having your entire firm's workstations and servers hosted offsite in a data centre. Essentially, cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand (like the electricity grid). In this brief, we will focus on one component of Cloud Computing: Virtual Hosted Desktops ("VHD"). We will explore how VHD environments attempt to resolve some key business requirements specifically; Disaster Recovery and Business Continuity, Privacy and Security and Mobility.

So as to ensure we are all on the same page a brief definition of a virtual hosted desktop is required. VHD result from desktop virtualization services provided through an outsourced, hosted subscription model. Simply put, lawyers and support staff connect via the Internet to their VHD and data that resides in a data centre using any device (thin client, existing workstation, Apple Mac, Android Smart Phone etc.). Firms using this model no longer have any data, servers, and - in most cases - workstations residing in their offices. Instead, everything resides in the data centre. In some ways, the model is very similar to "dumb terminals" and mainframes of the 1960's with a

modern twist. For Firms on the verge of taking the leap, some important questions to be addressed:

- How do we continue to work in the event of disasters; server failure, unexpected and prolonged power outages, fire, flood etc.
- Are my staff able to work from other locations; satellite offices, home, hotels in the event of a disaster
- What happens if a disaster strikes at the data centre that hosts the VHD
- Where does my data reside and what about security?

Disasters and how Firms continue to operate in the event that they occur is a bit of a gloomy topic, but one that has become more important for Firms to address and to ensure peace of mind. Disaster recovery, a strategy coined in the 1970's, when large firms realized they needed to be able to operate in the event their computer systems failed or a natural disaster occurred. Fast forward to 2013 and now all firms large or small are even more dependent on their IT systems. High availability of the firms IT systems has become essential for business continuity and continued success. The driving force; for firms who sustain significant data loss there is approximately 40% chance they don't recover and a 30% chance they close their doors within 2 years.

Traditionally, Firms housing their servers and IT infrastructure within their offices, have adopted various strategies to mitigate against disasters; backing up critical data to tapes, external hard drives and taking them offsite; Managing Partners home, safety deposit box, 3<sup>rd</sup> Party vendors. Some Firms, generally smaller, instead of managing backing up their data themselves have adopted the approach of signing up with a Cloud Backup Storage provider and having their data backed up and shipped offsite hands free. Pretty awesome and beats having to remember to swap and take tapes, DVD's, external hard drives offsite on a daily basis. In other cases and pretty rare and generally larger Firms due to the significant cost have gone the extra mile and duplicated their entire IT infrastructure to a 2<sup>nd</sup> location, possibly a satellite office so as to ensure there Firm is able to continue operating. Most Firms perform backups so believe they can recover their data relatively quickly. (Heaven forbid the backups have not been rotated for weeks or are corrupt.). If all is good with the data backed up, it could still take many days and in some cases weeks, depending on the disaster, to restore the Firm to an operational state.

Moving your entire Firm's infrastructure into the 'cloud' and using VHDs also means moving all applications and data into the cloud. VHD's therefore come standard with data and applications being backed up and all employees are able to connect from anywhere with any device. This should get us all excited as no one in the Firm is responsible for back ups anymore as it is all taken care of by the VHD provider. Wow we have a Disaster Recovery and Business Continuity Plan in place at a nominal cost i.e. in the event something happens to my office, fire, flood, prolonged power outage we are able to connect and continue working from home, satellite offices, favorite coffee establishment, ( not sure how productive we will be). Wait a minute, what happens if the VHD provider experiences a disaster of their own? How will we continue to work?

To mitigate against the same disasters individual Firm face, savvy hosted service providers have sophisticated backup software that automatically backs up the Firm's data on a daily basis to multiple physical locations in order to ensure a strategic backup and disaster recovery solution. In the event a disaster strikes at one of the VHD providers locations, Firms using their VHD solution will be able to continue working as they will be connecting to the VHD other locations. The amount of downtime for the Firm will be minimal and is driven by the VHD provider Service Level Agreements.

### **Mobility and disaster recovery**

A great benefit of a VHD solution is the simplicity connecting to your Firms desktop with all your applications using any device from anywhere i.e. workstation at the office, Laptop at home, Tablet in a hotel even your SmartPhone (this is for the hard core user with exceptional eye site). The idea of being mobile and being able to connect to your desktop in the Cloud also forms part of a Firms disaster recovery and business continuity plan. How so? In the event a Firms office gets flooded and all staff are required to evacuate the offices, if using VHD, these users are able to go home, coffee shop etc. and connect back to their Firms desktop and continue to work. Pretty powerful. This also applies if the Firm decides to move offices and for what ever reason the new offices are not complete, although not an ideal situation staff once again have the ability to continue to work until such time the office is complete. Bottom line staff are no longer tied to their computers under their desks to be productive.

### **Security and privacy**

Moving your entire Firm's infrastructure into the 'cloud' and using VHDs also means moving all data into the cloud. Many go weak at the knees, at the thought, as traditionally, the Firm's data sits on servers, at their premises, which they can touch and see. As a result there is a perceived idea of the data being more secure. Depending on the camp one supports, one could argue that servers and data onsite could be less secure. Generally Firms have less physical security around servers and that data resides on them. Staff with laptops often store important client data on them so that they are able to work offsite. USB keys are also used for a similar purpose. In the event of loss or theft there is potential for client confidentiality security breach.

How does moving to a VHD improve the security of the data and the privacy and security of data? To ensure security VHD providers store data in secure data center's with multiple layers of physical security. Accessing client's data and legal applications using a VHD via the Internet can present security challenges; however with Security Certificates (similar to online banking) and encryption, you can connect securely. Different schools of thought persist on this, but overall, the Firm's data becomes more secure in a data centre than at a Firm's premises.

For a Firm moving to a VHD environment it is important to address the following with the VHD provider; where does my data reside, who owns the data, what happens in the event of a breach, back up and recovery, security, confidentiality. Although we live in a global village, in which jurisdiction the data resides is very important for Firms and their clients and hence the VHD provider needs to ensure the data resides within and only within that jurisdiction. Regarding ownership of the data, the VHD provider is merely a custodian of the data and has no rights to the data. To address the above the VHD provider should have internal protocols and processes to ensure compliance to security, privacy and confidentiality of client data and these should be articulated in the Agreement signed with law Firm.

## Conclusion

From a disaster recovery and business continuity, privacy and security and mobility perspective there are many compelling benefits of moving to VHD; laptop stolen or server hard drive fails, no problem with a VHD as the data resides centrally in a secure data centre; mobility of your staff i.e. work from anywhere, anytime as well the flexibility of adding to your staff compliment without adding office space; concerns about daily back ups and offsite disaster recovery are replaced by hands free back of data stored in multiple locations; spend your capital elsewhere in your Firm as no more capital outlay for onsite servers, workstations and Microsoft licensing; VHD standardization leads to more efficient and effective user experience and reduces IT support costs; print from any computer at the office, at home or on the road; cost effective as you pay for VHD on a monthly basis. Besides the tangible benefits there are intangible efficiency benefits of VHD, an example being; because your desktop follows you, if you leave the office and get home\hotel to continue to work on a Case, all the documents, email, Internet etc. will still be open and hence you can pick up from where you left off quickly; in the event a user deletes\moves a document inadvertently they are able to restore the file themselves without calling for support – this saves significant time, effort and reduces user frustration.

So, is your Firm ready to take a leap to the cloud? We are on the precipice of a completely new era regarding the way we purchase and use computers. Law firms are excellent candidates for moving their computers to the cloud due to the fact that most of their business revolves around office productivity suites with transactional-based legal applications and the need for compliant secure client data storage. Cloud computing, with virtual hosted desktops, can help.

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