

Can the Banks take advantage of the Cloud?

Cloud Computing is getting very popular nowadays. Is it really THE solution many companies were waiting for? Can banks take advantage of it without endangering their security? I explain why this can be a really good business opportunity for smaller banks. Major banks may find they already have better service on their own.

The IT News for the last twelve months has been mostly populated with one single biz expression "Cloud Computing". From all the noise made around it, I can conclude that many speak about it and few really know what it means. Before going further with this article, let's have a look at the definition of Cloud Computing. I selected two from the many available. "Cloud Computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" is what you can find on Wikipedia: it means many things and nothing at the same time in my opinion. More interesting is the definition found on SearchCloudComputing.com: Cloud Computing is a general term for anything that involves delivering hosted services over the Internet. These services are broadly divided into three categories: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS). The name Cloud Computing was inspired by the cloud symbol that's often used to represent the Internet in flowcharts and diagrams." In fact, we all do Cloud Computing without knowing it! But is this concept really new? Here is a definition found on pcmag.com of what used to be called

"Timesharing Computing": "A computer environment that supports multiple users simultaneously. The term originated in the 1960s when multiple terminals were first connected to a single mainframe, allowing programmers and students simultaneous access to computing resources. Today's networks of servers within the enterprise or throughout the Internet provide a similar computing model, with hundreds or thousands of users accessing the same server or cluster of servers at the same time."

Now the picture might be clearer for the more seasoned managers: Cloud Computing is very similar to what used to be called Timesharing Computing in the old days of mainframes. The main difference, apart from the technologies, is that nowadays we are connected through the Internet, available to everybody and in the old days the connection was done thru a proprietary network like Tymnet, Datapac, Transpac, Ipsanet or General Electric. At that time, the better known companies providing such services were called IBM, Control Data Corporation or Univac.

Banks always used Cloud Computing

Timesharing Computing and Banks have always interacted closely. Whether it was to provide backup facilities or simply to provide banking applications to remote offices, banks always used these kinds of services, and nowadays there are still banks using legacy systems which rely on these technologies from the 1980s. So, what is it all about nowadays on Cloud Computing? In the first place I should mention a big marketing momentum, then comes the real added-value for certain banks and finally the economical part of it.

The marketing part. With revenues in constant regression, software vendors try to find other sources of income. ■



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Cloud Computing is billed on usage and ensures a constant source of revenue, better than software maintenance which can be cancelled at any time. Furthermore, CIO's are nowadays seasoned IT personnel and aren't easily fooled by a salesperson. The Cloud Computing solution is often addressed to a business manager with little IT know-how or those who are "unhappy" with their IT Department. At this point, I should stress that such a decision should always be taken in coordination with the IT Department and/or the Security Officer. The danger of not understanding exactly all the consequences of putting the data in the Cloud is too high to be ignored.

Certain banks can really profit from Cloud Computing. Notwithstanding with the above warning, certain banks and financial institutions can really profit a lot from Cloud Computing. You have first to differentiate between what I call "Services" and "Applications". What are "Services"? Everything which nowadays constitutes the basic operations of an Office: emails, data and voice communication, data repository, process automation, collaborative platforms. So what are "Applications"? I would say this is what is commonly called legacy applications; the applications developed or customized by the company. If you consider that legacy applications represent the "Intellectual property" of a company, the IT department should concentrate on these applications ensuring redundancy of systems and data security as well as availability as close as possible to 100%. On the other hand, so-called "Services" like email or data repository are getting more and more complex to manage and maintain; they are very useful and most of the

time at the front-row of IT disruption but if you look more closely at these applications, they are very similar across the board and provide the foundation of current office applications. These are exactly the kind of services where smaller to medium banks can profit from Cloud Computing. They will never achieve internally the same level of reliability or security. Upgrade of software is no longer necessary since it is provided by the supplier and, in choosing a proper offer with redundant servers, service disruption will be close to zero. Additionally some providers will supply functionalities too complex to be hosted on its own, such as video conferencing – something like Skype, but more suited for real business or collaborative environments. Also obsolete are the many discs necessary to backup all this data: for a small additional fee backups will be kept for many years to comply with regulation, and the data restore will be faster than before thanks to fully automated processes.

So, yes, small and medium banks can really take great advantage of Cloud Computing offering. They will get better and cheaper service as they currently have, and free their IT resources to take care of their legacy applications. Bigger banks will find it more expensive than running their own servers, but additional facilities might be a trigger to run hybrid platform: part onsite and part in the Cloud. But there is some caution to take with this approach, which I will discuss later.

Economical viewpoint. Using external facilities and paying just the service can bring huge economies of scale. Let's take the example of an email server. To host such a service you need one server with the appropriate opera-

ting system, the email server software, and the appropriate licenses per user. Add to this proper firewall and antivirus software, an effective backup solution, and lots of discs to store the backups, cooling and electricity costs and your bill will already be at least 5 digits. If you want to be safe, you will duplicate the infrastructure, get at least 2 engineers to look after it and eventually have two physical locations to tamper the risks. For less than CHF 10 per user and per month, you can get the same service from Cloud Computing suppliers. The arithmetic is quickly done: how many users do I need to run a cheaper email server on site? Savings can be calculated with even greater accuracy, since most suppliers allow monthly charges, so if your business suddenly cuts his employees by two, your next month bill will be halved, something you can hardly achieve if you host the service yourself: some costs cannot be compressed. Benefits may be different depending on your current solution and the country in which your business is located, but for the little price asked by the many suppliers you get a lot of professional IT services.

The caveats you need to know

If you intend to make use of Cloud Computing, there are a few recommendations you should bear in mind. The first one is security, security and again security. Leaders and managers should remember that governance has to be a means to increase data security within a company, but it should not define the entire company security, because often governance recommendations are only the minimum standards, and some industries require a higher level of protection. Banks and financial institutions belong to this category. Therefore, take great care to protect your data. End-to-end encryption is a must for sensitive data, no matter what the Cloud Computing supplier claims. End-to-end means you encrypt your data locally; the data is transmitted and remotely stored with your own encryption mechanism. If the supplier encrypts the data as well, then it is a plus, but you should own the encryption algorithm. If your supplier do not allow for this, then forget about him and look for alternatives.

The second recommendation is that you should be able at any time to host back the services or applications you are running in the Cloud into your own datacentre without any conversion need. This is what I call doing business with a return ticket. Your supplier may go bankrupt, he may increase the monthly costs drastically, you may need to make sure the data is stored in your country,... There are many reasons why you should want to come back, therefore it is important the supplier you choose uses standard components, namely servers, operating systems, and application software – anything you can purchase on your own and run at your own location should you need to. Ignoring this very basic principle will result in you being tight on your supplier and

may eventually lead to very high conversion costs. There are no magic here and the decision to use Cloud Computing is a strategic one, which needs to be evaluated and discussed before making a decision. It is not only a question of economies on IT Services but also that of creating additional values to the company, which needs effective structural solutions in order to protect its business. This is what banks and financial institutes have to do anyway to complete the duty of due diligence they have towards their customers. Finally don't forget to read the small print in the contracts. Here are some examples which may remind you of my first recommendation: security. ■

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