GFI WHITE PAPER

ON-PREMISE VS. CLOUD-BASED SOLUTIONS

Which is Best? A Dilemma for SMBs

As the price of storage and bandwidth continues to drop fast, Cloud-based services are becoming more and more attractive to small and medium-sized businesses (SMBs) which are seeking to reduce licensing costs, avoid recruiting IT staff and focus fully on their core responsibility – growing the business. Although the Cloud provides SMBs with a cost-effective alternative, companies need to be wary and not fall into the 'all Cloud' solution trap. There is no one-model-fits-all and rather than diving headfirst into the Cloud, SMBs would do well to see how they can maximize the benefits of their existing set-up as well as those that a Cloud-based service can give them. With a hybrid delivery model, SMBs can have the best of both worlds without long-term commitments, unnecessary expenses and the inefficiencies of hosted and on-premise models.

Introduction: Back to the Future – What's New?

Cloud computing is not something new and its history can be traced back to the early 1960s when computing pioneer John McCarthy proposed his vision of 'utility computing' in which companies provided computing power for specific services or applications.

In the days of mini-mainframes, all computing was done in the Cloud. Companies bought blocks of computing time and spent hours at a small terminal inputting data and creating reports. The process was often slow, laborious and required the assistance of skilled programmers. It wasn't cheap either.

The all online delivery model survived for 20 years until the advent of the personal computer. Faster, smaller and with greater storage capacity, personal computers brought down the cost and permitted everything to be done on-premise. Within a single room, businesses could house all their data and networking enabled more employees to access information at any single time. Businesses now had a wide array of solutions which they could choose from. They were also more efficient and costs were contained.

By the early 2000s, the Internet had revolutionized the world and the way people did business. Computing capacity had reached a point where it was possible to offer IT/business application services to companies to use on a pay-per-use or rental basis. Instead of setting up costly IT departments, companies could now procure the hardware, software and storage in hours not days and only pay for what they needed.

On-premise started to lose its appeal… it was back to the 'all Cloud' days.

The Present: Cloud – An Attractive Offering

The Software as a Service (SaaS) market is expected to grow to 18% by 2013, up from 6% of software sales in 2007, Gartner estimates show. The market for SaaS and Cloud services is showing strong and consistent growth, however this estimate also shows that at 82%, the on-premise delivery model is still the leader and it will take something special for Cloud services to balance the numbers.

Yet, judging by the hype surrounding the Cloud and SaaS, it is not surprising that the market is experiencing this level of growth. More and more SMBs are 'aware' of the benefits of moving into the Cloud and they can see tangible benefits.

Cloud computing – an umbrella term for a wide range of online services – is an attractive proposition for SMBs seeking to make the most of the technology available today at lower costs and lower risk. The upfront investment is low, they don't need to invest in software / hardware, licensing and renewal costs are kept to a minimum, total cost of ownership is reduced and they only pay for what they use. While many companies remain concerned about security, systems' redundancy, functionality and who has access to their data in the Cloud, the cost benefits very often outweigh these considerations.

SMBs, however, also need to realize that moving to the Cloud should not be a step that could prove costly to reverse, even more so when their circumstances change. As will be explained further down, there are instances where an on-premise solution is more beneficial long-term inasmuch as there are times when a Cloud-based service is really and truly the only way forward for certain set-ups.

Hosted or on-premise: the dilemma

SMBs are often faced with the dilemma whether they should go for a hosted or an on-premise solution. There is really no right or wrong answer but companies need to assess their business needs and infrastructure before taking a decision. The fundamental point is that not all solutions work best in the Cloud or on-premise and the choice often requires a trade between security and costs to optimize returns.

There are advantages and disadvantages with both platforms and these are subject to the type of software/service under consideration. The table below outlines the advantages and disadvantages of the hosted and on-premise delivery model.

On-premise	Online
Control over all systems/data	No software licensing costs
Corporate data is stored/handled internally	No new infrastructure requirements eg servers
Dedicated IT staff for maintenance/support	Low cost for services
Initial investment is high but pays off over time	Third parties are doing hard work

Taking the plunge: pain points

What makes the decision far from easy to take is that there are conflicting arguments and pressures. Costs are a primary concern but organizations cannot ignore issues related to security and compliance. The plunge into the Cloud is often based on the following four pain points:

- Lack of resources to build an infrastructure

- Software licensing costs are too expensive for a start-up

- Lack of resources, especially in IT

- Lack of technical know-how to maximize benefits of IT systems

It is not surprising that SMBs, especially start-ups, see the Cloud and hosted services as a very attractive option. However, more experienced SMBs should be looking far beyond costs as a sole consideration. Larger organizations, particularly those operating in industries with strict legislation and compliance regulations should factor in:

- Third-parties are handling confidential data

- Redundancy – what happens if the solution provider fails?

- A subscription service could be expensive over time and as business grows

- Customization and integration with custom systems could be an issue

- Lack of full control over data and processes

Going back to the question 'which is best: hosted vs on-premise?' the answer is neither and both. The key is to find a balance between both delivery models and adapt according to the business's needs. Simply put: choose what makes business, security and technical sense.

Some applications are great for hosting in the Cloud: CRM products, network monitoring, travel applications, systems backing up on-premise hardware/software solutions. On the other hand, applications such as accounting packages, data storage solutions for compliance purposes and most security products are best implemented on premise. When you factor in the cost savings, the Cloud often appears to be the best choice but that does not mean that a solution's implementation is justified in terms of the technology, the organization's set-up and/or its requirements.

The solution: A hybrid model

Today, vendors tend to do one or the other, focusing their efforts in one direction or another thus limiting the possibilities that a multiple-solution, single-vendor strategy can offer.

The hybrid approach, however, sees a vendor giving customers the best of both worlds by allowing them to maximize the benefits of both a hosted delivery model and those of the on-premise model.

The benefits of the hybrid model vary from one customer to another but they can be summed up as follows:

- Run applications where they are most needed and fit best into the corporate infrastructure

- The hybrid delivery model makes sense for all companies whatever their size or infrastructure

- The benefits of the hybrid approach can be maximized by a 10-employee company or a 500-employee company

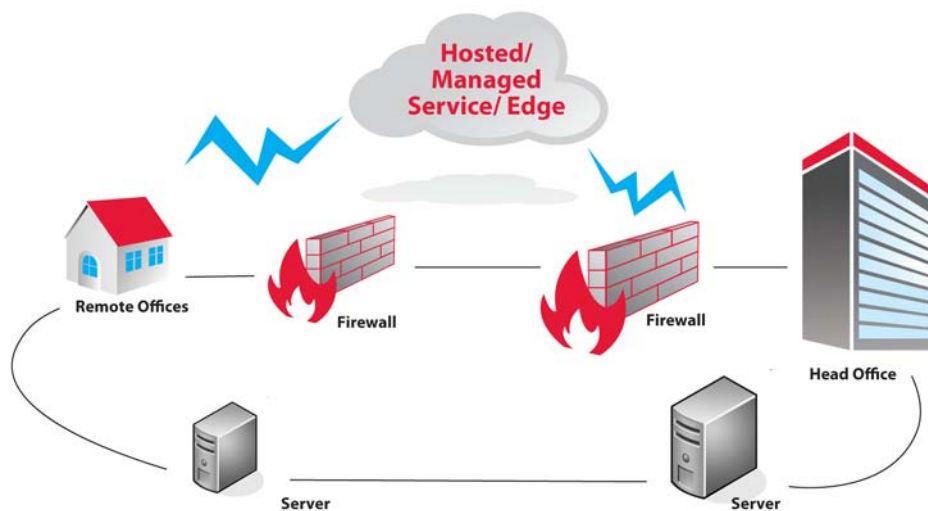- All that changes is the environment in which the solutions are used

Figure 1: The hybrid model

How the hybrid approach works

To gain a better understanding of how the hybrid model works, the following examples are based on typical company set-ups, each with differing needs that require either a hosted or on-premise solution – or a mix of both.

Scenario A: 10-person start-up

In the first scenario, we look at a 10-person start-up company that needs to monitor and manage its internal systems. The company does not have its own IT team, and IT knowledge is minimal. The solution, in this example, would be for the company to choose a managed service model (online).

By handing over responsibility to a third party, the start-up benefits from lower capital costs (no IT personnel recruited, no new hardware/software required, no licensing issues) and, equally important, the company is not distracted from focusing on its core responsibilities – growing the business.

As time passes, this same start-up increases its workforce 10-fold. Its requirements are increasing and with more in-house support calls, it pays for the company to hire its own IT staff and bring system management in-house. By opting for an on-premise model, the company has full control over system growth and reduced ongoing subscription license costs (especially over the long-term).

Scenario B: 50-person accounting firm

In this scenario, we have a 50-person accounting firm which is beginning to have problems addressing an ever-growing volume of data. Although the firm has an in-house archiving solution, the Head of IT still backs up all client data on an external hard disk which he takes off-site with him every day. Apart from the security risk this poses, auditors are also requesting difficult-to-find files and want assurances about the integrity, recoverability and security of the data.

By subscribing to a Cloud-based archiving solution, the accounting firm benefits from a much more secure backup of its data and much more reliable access for data recovery. The firm is now also able to comply with government regulations in terms of data management, archiving and access to data.

Scenario C: 200-person company with four remote offices

This is a more complex scenario. The main issue faced by this company is that it is finding it hard to manage its remote sites without spending a lot of money to hire new IT personnel for each office. With little technical expertise outside head office, the company wants to ensure that it can manage its systems remotely, maintain and allow access to the email archives even if head office email server is down, and provide for each office protection against viruses and spam.

In this case, a hybrid approach is the optimal solution. The company can run remote management software in the Cloud and easily monitor and manage all its systems in its remote offices. This enables it to address possible issues in advance of them becoming a problem.

The company also subscribes to an online backup service to ensure that all its email archives are also being backed up in the Cloud. Should the company suffer downtime or the email server requires maintenance, employees can still access email via the Cloud archives. Synchronization of the on-premise archives with those online greatly improves redundancy.

In terms of anti-virus and anti-spam solutions, the company finds that it is best that these are run on-premise at each of the remote locations. At the same time, it uses a hosted email security solution that acts as a first line of defense, thus easing traffic to the email server and reducing the impact on Bandwidth and server performance. Using the remote monitoring and management managed service, the company can check that these systems are up-and-running and updated as necessary.

Why does this approach work?

The hybrid approach gives SMBs real choice and real results, whilst the vendor benefits from a new market, an increase in the services it can offer and a more robust strategy.

SMBs will see these benefits when adopting a hybrid approach:

- One vendor, multiple solutions – one-stop shopping for all their security, messaging needs

- Enables them to choose what suits them best depending on their existing and future infrastructure requirements

- Enables them to maximize the strengths of both hosted and on-premise models

- They do not need to seek alternative vendors if they want to switch models – there are no new terms to negotiate, no long-term contracts, migration issues, ab-initio costs, etc

- They will benefit from the existing relationship. The vendor may give them 'preferred status', better conditions when purchasing new services, lower costs to migrate data if they move to the Cloud or on-premise than if they had to use a new vendor

GFI Software's vision

The key to choosing between a hosted or on-premise delivery model is having a thorough understanding of the company's infrastructure, current needs in terms of technology, and growth plans in the medium to long term.

SMBs also need peace of mind that should they need to switch between delivery models they can do so with minimum hassle and cost while retaining their operational status throughout the process.

This is one aspect that GFI has been focusing on as it presents its hybrid approach to hosted / on-premise and Edge services to customers. The goal is to provide SMBs with a single-vendor, multiple-solution choice, where they can comfortably shift, for example, from a hosted archiving service to an on-premise archiving solution (or a mix of both for redundancy) or install email anti-virus software in-house or filter their inbound email in the Cloud, without the need to source other vendors, create complex migration plans or pay high fees to release it from contractual obligations as it leaves one service to join another (see Figure 2).
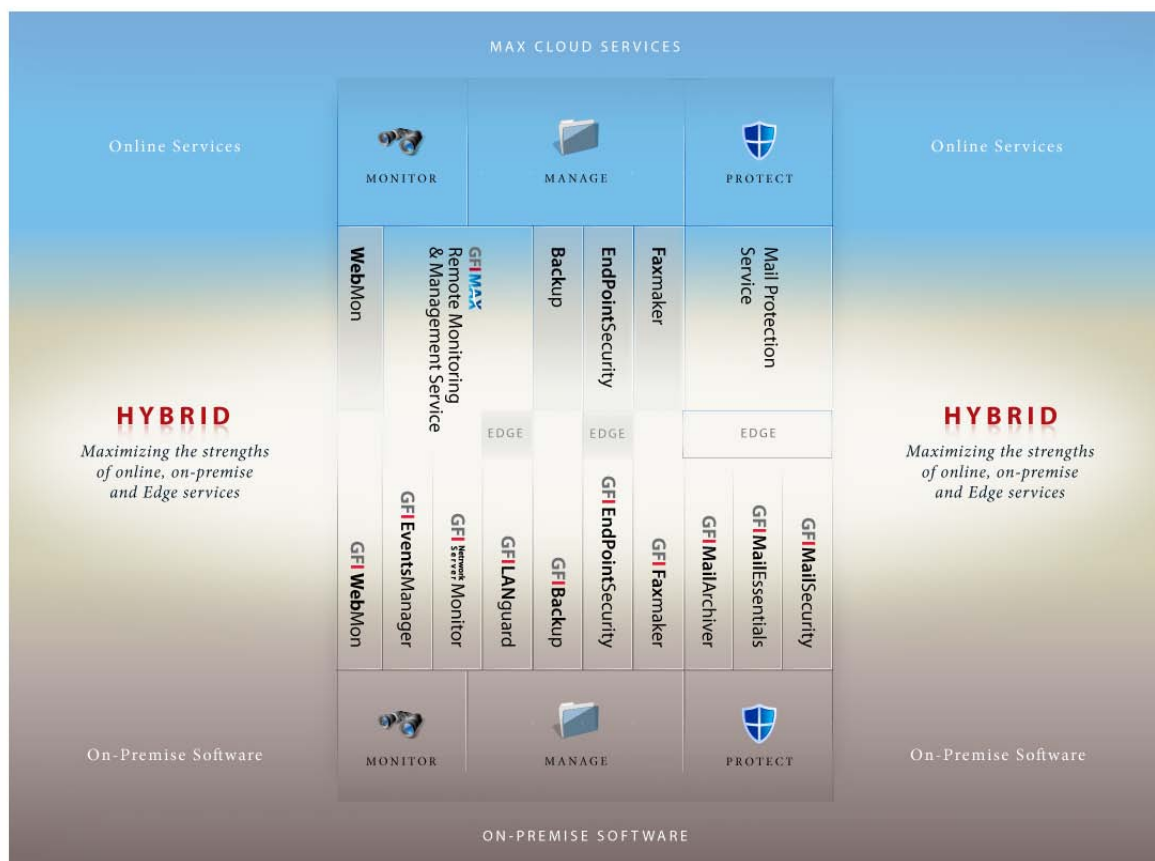
Figure 2: How GFI's hybrid approach works

GFI's belief is that by giving customers this choice – the best of both worlds – SMBs will be more willing to enter the Cloud or remain on-premise knowing that a cost-effective option exists.

What GFI's hybrid model offers:

- GFI's existing on-premise portfolio now being mirrored in the Cloud

- SMBs can choose which product to implement

- Anti-spam, anti-virus on premise or in the Cloud

- Email archiving on-premise or online or both together

- Extensive monitoring capabilities – in-house or remotely

- Enabling SMBs to mix n' match and switch back and forth as their business needs change

- Opportunity to choose only those services that are required without having a full-blown installation

- Even more benefits when using the range of edge services the hybrid delivery model creates

Extending the hybrid: Edge Services

The hybrid approach also creates additional services and options for companies which want to maintain their existing infrastructure but want to use services in the Cloud to help them boost security and maximize their existing set-up.

Edge Services can provide SMBs with defense-in-depth, business continuity and redundancy without the need for additional hardware or software.

For example, an SMB with its own email set-up on-premise can use GFI MAX MailEdge™ to reduce the volume of spam before it reaches the network. With all email traffic being filtered in the Cloud before reaching the email server (where it is further filtered using multiple technologies), SMBs virtually eliminate all email threats. If an organization operates in a region where bandwidth and connectivity are limited, it can use an edge service to reduce the load of email reaching the email server by filtering it first in the Cloud.

Business continuity is a concern for many businesses and very few can afford to find themselves in a situation where they have no email because the email server is down. Thanks to an edge service which offers email bagging and/or archiving, they won't need to worry if the server crashes. Using a web interface they will still be able to check and reply to their mail until the server is restored.

Taking business continuity a step further, SMBs can maintain a high level of redundancy by using an edge service to archive old data that could be sitting on their server and taking up precious disk space. By offloading old data and having it stored in the Cloud, SMBs can put their mind at rest that the data is secure, easily accessible for compliance purposes and they will not be concerned that on-premise storage space will run out.

Conclusion

Technology today gives organizations a great deal of choice. Advances in computing power and storage capabilities at a fraction of the cost two decades ago, have made it possible to choose from a number of options. For SMBs, irrespective of whether they are start-ups with 10 or fewer employees or 200-strong organizations, decisions based on technology need to be taken with feet firmly on the ground.

Successful deployment of technology – be it through a hosted, on-premise or hybrid delivery model – depends on SMBs understanding perfectly well what they need and why. Applications and services need to be run where they are most efficient and not just because cost is the most attractive option. Long-term, falling into the 'all Cloud' solution trap can prove to be more expensive, time-consuming and problematic.

Being able to choose between delivery models yet also benefiting from quality solutions that are cost-effective and designed for the SMBs is one very good reason why SMBs should actively explore vendors moving into the hybrid market.

What the market players think about Cloud computing

- A recent survey conducted on behalf of GFI Software shows that 55% of SMBs in the US use one or more hosted/managed services and the likelihood of businesses moving to the Cloud increases with company size.

- The reasons given by SMBs vary, with just under one-third using these services for minor applications, one in four for security applications, one in five for CRM/ ERM systems and 27% saying they use hosted services for network monitoring and redundancy.

- Just over half (56%) said they used these services over on-premise solutions because of easy Internet access and scalability while 46% pointed to the lower costs involved. A total of 43% said that faster deployment was a key consideration.

- The use of hosted/managed services, however, was not without its concerns with 62% stating that application performance, lack of data privacy/security and systems failure/redundancy were very high concerns. Just under half (47%) said customization of the service was a high concern.

- When asked if they would choose a vendor that gave them the option to easily switch between hosted and on-premise, just over half (52%) said they would, with 37% saying no. The larger the company, the higher the percentage of respondents who said they would choose a vendor offering this hybrid delivery model.