

CLOUD COMPUTING FACT SHEET

Considering Cloud Computing For Your Business?



This White Paper is brought to you by your friends at The Fulcrum Group, Inc.



CLOUD COMPUTING FACT SHEET



Cloud Computing Defined

Cloud computing is a model for enabling 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.

– National Institute of Standards and Technology

Cloud Computing is about delivering results

The IT research firm Gartner defines cloud computing as a style of computing where scalable and elastic IT-enabled capabilities are delivered as a service using Internet technologies. Gartner: “First and foremost [the cloud] is the concept of delivering services (that is, results as opposed to components).”

- **Cloud providers typically take care of security, applications, data storage and backup, and infrastructure.**
- **Cost savings: a 2010 study from the Brookings Institution saw average savings of 25-50%.**
- **Called the ‘utility model’ of computing, the cloud allows for rapid provisioning of IT resources.**

Public vs. Private Clouds

When a cloud is made available in a pay-as-you-go manner to the general public, we call it a public cloud; the term private cloud refers to internal datacenters of a business or other organization, not made available to the general public.

For growing businesses or firms with 4 or more servers, private clouds can create business agility when based on great technology, like VMware vSphere. VMware makes products that can make 1 physical server work like 10 - or allow you to create virtual desktops and replace PCs with zero clients attached to a monitor, like the small box pictured above. Adding shared storage can add redundancy and failover for many different situations.



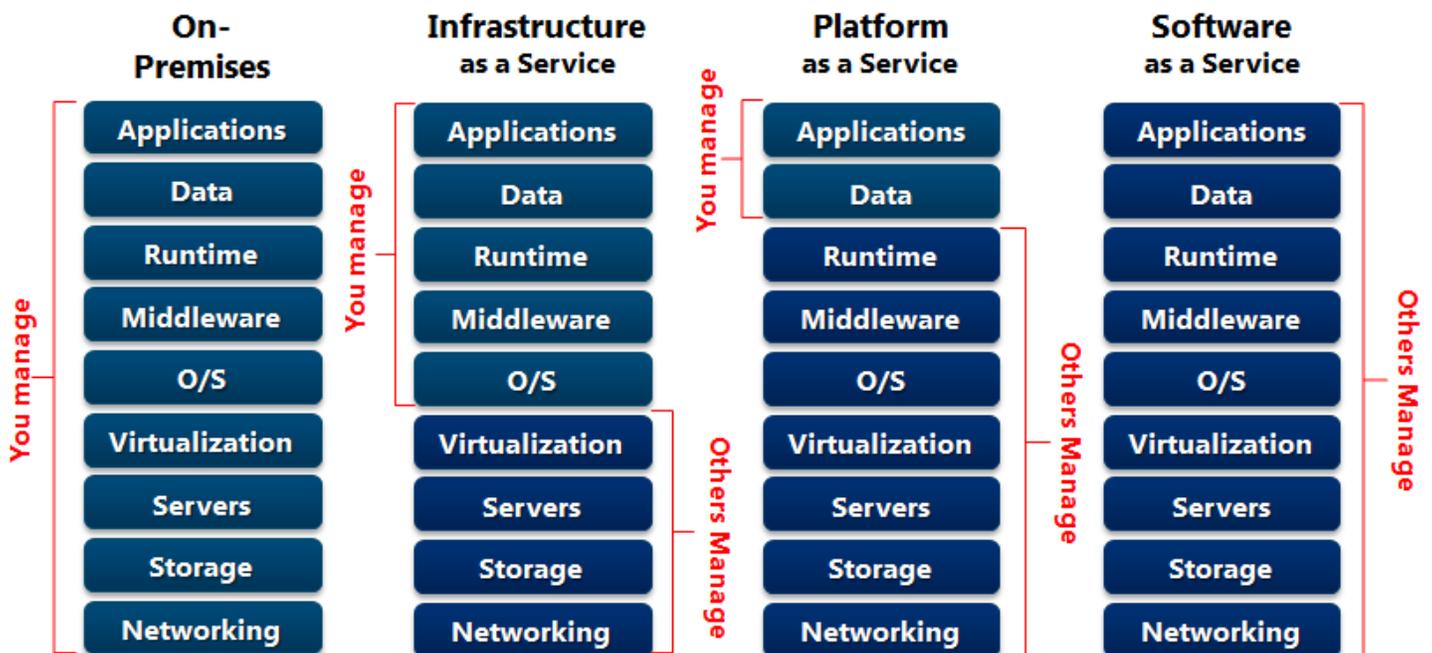
Cloudburst

It is estimated that the U.S. cloud computing market totals \$3.2 billion. According to Gartner’s 2011 predictions, number one on their list of Top Strategic Technologies is cloud computing. Gartner also predicts that the SaaS market will hit \$14 billion in 2013.

Acronymia

When we think of cloud computing, it is usually in contrast to owning all the equipment yourself. Sometimes monthly operating expenses are preferable to capital expenditures for on-premise equipment. This is where one cloud option might make more sense than another for your organization. Three types of cloud computing include:

- **IaaS – infrastructure as a Service**– a good option for a company who might wish to utilize processing power on a server. For instance, one might wish to lease a server running Microsoft’s web server which hosts their website.
- **PaaS – Platform as a Service**- an appropriate fit for one who wishes to lease use of servers and the system software to use in them, such as Microsoft’s Windows and SQL Azure platform.
- **SaaS – Software as a Service**- A complete fit for access to our trouble ticketing system (with backend database and software) or hosted email.



Key differences between the various types of services above, hinge around what areas you have skills and resources to manage. You also will need to consider what your customization or integration needs are. Less control usually means less customization.

From the chart above, IaaS would be a better fit if you have resources to handle all the networking, storage and server aspects. At the other end, SaaS would be fit when you have limited resources and want to hand off as much as possible, so you can focus on your core business expertise.

Sources

¹ Darrel West. 'Saving Money Through Cloud Computing.' Brookings Institution. April 2010.

² Michael Armbrust. 'Above the Clouds: A Berkeley View of Cloud Computing.' Univ. of California. February 2009.

Top Reasons for evaluating Cloud
Cloud computing can create agility for an organization. Here are some of the ways we feel it can make you more agile and a short chart of our most popular cloud services.



5 Fulcrum Group Cloud Offerings

SPOT Hosted Exchange // full email, calendar and contacts

Email setup and maintenance can be a tedious task. Upgrades to Microsoft Exchange 2010 mean acquiring new hardware and new Microsoft Exchange and Office 2010 licenses. While some small firms choose hosting to avoid new hardware/software costs, some larger firms move Exchange to the cloud so they can focus more on core business applications and less on email.

SPOT Email Filtering // SPAM and email virus control

With some estimates of spam representing between 65 to 85% of email traffic, having a service might be easier than trying to choke spam at your mail server. The tool's DR functionality allows easy email server maintenance, and ease of use can give executives and other end users some control over their own approve/deny lists with limited administrator involvement.

SPOT Offsite Backup // automated backup of key files, databases

Dropbox and other tools are great for basic file duplication. Our Offsite Backup can also maintain multiple versions of standard files. If you accidentally overwrite a file or delete content, Offsite Backup can revert you to the needed prior copy. You can also protect data in motion like SQL and Exchange databases, as a way to complement network backups or traveling laptop users.

SPOT Network Monitoring // asset lists, log aggregation and monitoring

For a monthly fee, we can provide monthly reports on server performance, aggregate Windows event logs, send alerts for thresholds and other needed tasks. Simple software on your network sends data back to our data center for management, reporting or alerting.

SPOT Protect // backup AND disaster recovery

More details on SPOT Protect following this page



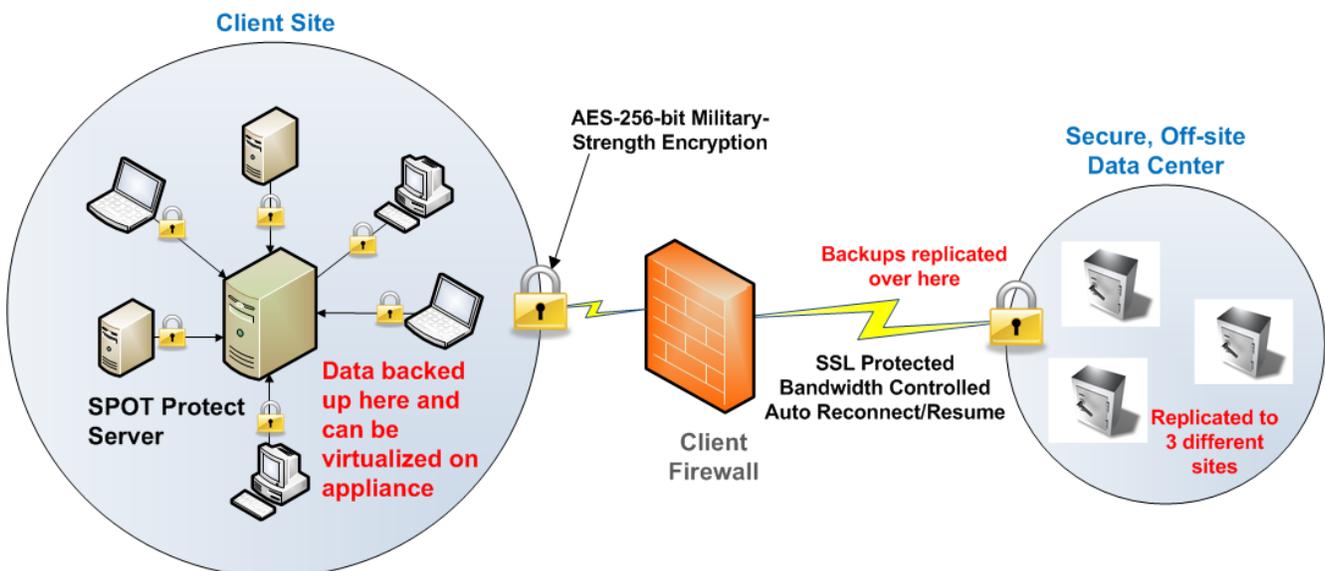
Without **SPOT Protect**, recovering from a server crash could take 24 hours to several days, depending on the availability of hardware and the amount of data being restored.

With **SPOT Protect**, you can recover from a server outage in as little as 30 minutes!

From network monitoring to email spam/virus filtering, to backup and disaster recovery, The Fulcrum Group's family of **SPOT** services provides cost-effective, fixed-price IT and Cloud services.

This month, we are taking a closer look at **SPOT Protect**, our customized Backup & Disaster Recovery solution, which is a combination of on-site hardware/software, off-site cloud storage, and support services. SPOT Protect is geared towards businesses and organizations with roughly 3-10 onsite physical servers, or any organization with critical workstations and servers.

For many of us, our business "up time" or availability has never seemed more critical than now, so the continuity of our technology is an expectation we must fulfill. Backed by decades of business acumen and hands-on expertise, The Fulcrum Group supplies local Fort Worth organizations with lease or purchase options for high-capacity storage appliances, from which snapshot image backups of server information can be easily accessed. Using image snapshots, backups take place incrementally - versus lengthy, scheduled backups to tape or disc- allowing for instant access of critical data when needed. Individual files are restored quickly and easily.



There is no rush to replace new servers without careful consideration of your organization’s individual needs because access to cloud storage or data on the backup appliance allows your business to function uninterrupted. Highly-customized critical workstations (like executive laptops, for instance) can also be protected by backup snapshots. You can even allow users to remote in from any other computer to the snapshot image mounted on the backup appliance and access their same data and applications. When the new laptop comes in, the same data snapshot can be moved back onto the new hardware, even if it is a completely different machine!

Cloud storage is a worthy consideration for your disaster recovery plan. Data is “pick & choose-able” and can be stored locally on the backup appliance and offsite in the cloud, for local and offsite backup protection (as part of a disaster recovery initiative).

Whether your business is a small CPA firm with just a few users or a government agency with multiple servers, The Fulcrum Group’s technology experts can design a SPOT Protect solution that will help keep your organization’s availability at its highest.

Chat with one of our consultants for more details on whether SPOT Protect is a fit for your business at 817-337-0300.

	TAPE	vs	SPOT Protect
Backup Window	A significant backup window is required to complete a full backup — time lost for access to vital systems.		There is no backup window...your critical business systems remain up and running.
Recovery Point	Systems are typically backed up every 24 hours. Are you ready to lose a day’s worth of work?		Data snapshots take place every 15 minutes ...about the same length of time as a coffee break.
Recovery Time	There’s nothing automatic about restoring with tape. The process is time-consuming and labor intensive.		Recovery is as simple as pushing a few buttons (or clicking a mouse). Systems are restored in less than 30 minutes.

