

# Amazon Web Services Made Simple

Learn how Amazon  
EC2, S3, SimpleDB  
and SQS Web  
Services enables  
you to reach  
business goals faster

Donald Robinson

## Amazon Web Services 100 Success Secrets

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## Amazon Web Services 100 Success Secrets

There has never been a Amazon Web Services Guide like this.

100 Success Secrets is *not* about the ins and outs of Amazon Web Services. Instead, it answers the top 100 questions that we are asked and those we come across in forums, our consultancy and education programs.

It tells you exactly how to deal with those questions, with tips that have never before been offered in print.

This book is also *not* about Amazon Web Services' best practice and standards details. Instead, it introduces everything you want to know to be successful with Amazon Web Services.

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## Steps to Finding Other Alternatives to Amazon S3

Amazon's S3 or Simple Storage Service allows you to store and retrieve data through a hosted service. Essentially developers could have a virtual server for their applications developments. Some developers however are looking for other alternatives to Amazon S3 to meet their growing data serving needs.

There are lots of hosted web services companies that could provide alternatives to Amazon S3. Here are some important features that you must consider when looking for alternatives to Amazon S3.

First, you need to look at different price ranges and determine if you can get more savings from other virtual data storage providers. Hosted storage services are getting cheaper nowadays as more players tend to compete in the market.

In order to maximize the profitability of your applications development ventures, it would be best to find alternatives that are cheaper. Be very careful though with your choices because cheap storage services could have some quality service issues.

Second, speed is another important consideration when looking for alternatives to Amazon S3. Amazon services are fast enough but if you want faster uploading and downloading processes, then you have to read some tech reviews of different data storage providers.

Reviews can open up different options for you. In fact, there are reviews that publish head to head testing results of speed capability of Amazon services and other service providers.

Lastly if you want to try other services, it would be best if you sign up for a free trial. Most providers offer free trial features for their simple data storage services. You can determine then if the service would be a good alternative to Amazon S3.

## Sensible Storage Solutions with Amazon S3

Using Amazon's S3 or simple storage service is a very sensible way for managing the information you need for your business or personal life. This is a type of online storage service that is part of the offering of Amazon's wide range of web services. The great thing about this is that it provides you with unlimited storage and still gives you a simple and easy to navigate web service interface.

Amazon launched its S3 as simple storage service back in 2006, not expecting the boom to be as big as it is. Perhaps what sealed the deal for most users and clients was the fact that the system only charged you a mere fifteen cents each gigabyte pr month and the very small bandwidth charges necessary to send and retrieve data. Because of overwhelming success, Amazon has recently introduced better pricings for its end users who have accumulated over fifty terabytes worth of data storage.

They will be pleased to know that a discount pricing awaits them – proof that Amazon does reward its loyal and faithful clients and provides top service at a price that cannot be beat. The beauty of S3 revolves around the fact that S3 or simple storage service makes full use of the same type of scalable storage infrastructure which Amazon uses in order to run its own network of global e-commerce.

With this, you are more confident of the durability and security of your information as you get world class support for wallet friendly prices.

## Top Reasons Why Developers May Choose Google App Engine over Amazon Web Services

Many were not surprised when Google launched the Google App Engine for developers. Most technology experts believed that this was the most logical direction for Google: to provide a web platform for its bundled web applications and services.

The Google App Engine is very similar to Amazon Web Services, the pioneer in providing a web based platform for hosted services. Amazon Web Services feature web storage, virtual computing, and cloud computing databases.

All these features can also be found on the Google App Engine that's why some web technologist concluded that Google wanted to edge out Amazon's market lead in cloud computing.

There are many reasons why developers believe that the Google App Engine could overtake the Amazon Web Services in the coming years ahead.

First, Google App Engine comes as a bundled service for the development of web applications. Developers could get a single package web platform compared to the disparate services offered by Amazon.

Second, there are many features in Google App Engine that are not present in AWS. These include Google APIs, Python runtime engine, and server side JavaScript.

Lastly and probably the most enticing part of Google App Engine is it's free. Developers actually can download the engine even if they don't have an account with Google. The downside of Google App Engine is its limited storage quota and bandwidth allocation per user. For most developments however, the quota limits would be enough.

These are the compelling reasons why developers might migrate from the Amazon Web Service in favor of the Google App Engine.



## Latency Issues and Cost Keeps European Users from the Amazon EC2 Service

The infrastructure for Amazon's EC2 or elastic cloud computing is not yet available in Europe. So there are few European users who have experience using Amazon EC2 as a hosting platform.

There's still no word from Amazon when it would deploy EC2 services that have dedicated data centers in Europe. However, Amazon S3 storage data centers and services are widely used now in most European countries.

The high cost of EC2 service in Europe keeps many users from using the service. A cross-Atlantic transfer may have several issues and concerns about latency. Cross-Atlantic transfers have high bandwidth requirements so the cost of cloud computing for European users will be more expensive.

Another cost related issue concerns the transfer of data between Amazon EC2 and Amazon S3. For U.S. users, transferring data to and from EC2 to S3 would be free of charge per gigabyte of transfer. Not so with European S3 data transfer to EC2. Such data transfer would be charged with regular rates by Amazon.

At the Amazon web services forum, many users from Europe are hoping for the availability of the service to European users. Some are utilizing EC2 services just to try the system and to perform simple virtual computing. European users however cannot use the Amazon EC2 services for business hosting primarily because of high cost of bandwidth and data transfer.

If you want to be the first to know when the EC2 services will be rolled out in Europe, it would be best to join the Amazon web services forum and get service updates from Amazon.

## Let AWS SQS Web Console Get the Job Done

When it comes to the future of software development, one will always think about good craftsmanship. The same can be said about the impressive range of web services that Amazon has been able to build, along with so many libraries it had developed over the years. Most engineers nowadays know that they can get from Amazon's web console most of the things they will need in order to deliver complete systems.

While there are a lot of computing and tinkering involved, the most important consideration is that SQS web console is definitely involved. This is more often known as simple queue service. It is part of the top ten concepts which software engineers must commit to memory if they want to be able to succeed in this realm. Its design patterns and its refactor codes may be a bit overwhelming for some, but it definitely makes the system alive and kicking.

It offers a very reliable hosted queue which you can use to store messages that travel to and from computers. When you use Amazon SQS, many developers can have the ease of simply moving their data from one distributed component from their applications to another. These perform tasks without having to lose any messages (thanks to utmost security measures) and does not require any component to be available at the same time. It is easy to build your own automatic workflow using Amazon SQS because it is directly tied up with Amazon's elastic compute cloud and more types of Amazon web services and infrastructures.

## Tips to Finding a Cloud Computing Provider

There are lots of cloud computing providers today. Essentially, these providers offer similar services. They provide a web based platform so you can perform your computing tasks on virtual machines, use web based application, and store your data on remote servers.

However, finding the best cloud computing provider is not easy. Because you have lots of choices, you need to carefully assess the capabilities of each provider. Here are some important tips which could guide you in choosing a cloud computing provider.

First, if you're not a power user and you don't need too much serving power to perform your computing jobs, then go for free service providers.

Google is an example of cloud computing provider that has lots of free services. You can use office applications, email services, and communications that are all web based. You can also store data on remote servers and retrieve them anytime you want.

Free cloud computing services would be very ideal for personal use, for startup companies, and for small and medium sized organizations.

On the other hand, if you need large storage and more powerful virtual servers, then you can get the services of paid cloud computing provider. Such web services are offered by big companies such as Amazon, IBM, and Microsoft.

There are different cloud computing packages that will be available for you. These packages have varying plans for disk space usage, data transfer, and bandwidth allocation.

All you have to do is choose which service package will answer your computing needs and requirements. These cloud computing companies also provide support services when you sign up with them.

## The Superior Cost Saving Benefits of Amazon EC2: A case study

The Elastic Cloud Computing (EC2) of Amazon can provide big savings for companies. EC2 is cloud computing. It is the virtualization of an IT environment to eliminate the need of buying new hardware to serve your computing requirements.

By utilizing Amazon EC2 services, you can virtually rent hundreds of computers and servers for \$0.10 per hour on standard instances. So if you have big projects that will need large computing capabilities, renting virtual computers on EC2 services could translate to big savings.

A clear example was provided by a major national news paper which used Amazon EC2 facilities to convert its archived issues into PDF. The news organization has archived issues dating back to mid-18th century.

Digitizing the back issues produced 4 terabytes of image files. Converting these images into PDF would be a computing nightmare. It would require lots of hard disk space and plenty of time to process the archived images.

By getting the services of Amazon EC2, programmers of the news organization rented nearly a hundred computers and run the conversion process on it. Converting 4 terabytes of images into PDF took only 24 hours. The total cost of the project was only \$240.

Without the Amazon EC2 facilities, such projects would cost thousands of dollars. This will not include the valuable time allocated for creating PDF files of archived images.

Companies therefore can surely get superior cost saving benefits from EC2 cloud computing. They can also get faster results because they would be able to run simultaneous computing instances.

## Best Recommendation for Enterprise Storage Services

There are so many types of enterprise storage services out there that one may have a bit of trouble choosing which one to go for. Luckily, there are a few good ones out there and the best one that is also value for time and money would be that of Novell's. Novell is a type of storage service that gives its users secure access no matter where they may be.

Formally called Novell Open Enterprise Server 2, it is jam-packed with services that really do make your vital data easily accessible. This is a way to store user data in a more efficient manner as well and comes with a host of technology which you may find very useful indeed. It comes with dynamic storage technology which helps in reducing the amount of storage management costs. It does it in a very significant manner and helps to ensure the regulatory compliance of your data.

Additionally, it also improves the backup as well as the recovery of very critical data. This feature helps to categorize your unstructured data into two types – active or stale. Furthermore, Novell storage services can also be scaled in order to accommodate all types of needs of your growing business. It is very easy to maintain it and the great news is that it keeps your files from being corrupted.

Not all enterprise storage services can boast of the same thing for their systems – but Novell Enterprise Storage Services can confidently say that it does that and so much more. You would definitely be better off with this type of enterprise storage service rather than with other kinds.



## Possibilities of Using Amazon EC2 to Build Commercial Applications

Amazon is a website that is considered as the biggest retail site in the entire world. This simply means that it will take a lot of complicated infrastructure in order to run something like it. While it does run on EC2, it is a valuable commodity on itself – and Amazon recognizes it by trying to monetize it with building some commercial applications. With this, a lot has been considered with regards of the possibility of using the entire structure of Amazon EC2 in order to build different types of commercial applications.

This will also pave the way for the next wave of web sites in history. The great thing about doing this is that there will be no set up charges and any other type of up-front costs to it – and of course, you have the stability and the confidence of building it on the framework of Amazon. This simply means you can get to have unlimited computing powers which you can tap in an instant.

The smallest fee you will have to pay for in order to build commercial applications would be the mere ten cents for every hour you use up processing it. While this is indeed a very technical kind of service, you can be sure that other people will want to know more about it and catch on. The ability to set up something like this will definitely make a new market for more technical shops and pretty soon, everyone will be on the Amazon EC2 set up to build commercial applications.

## The Benefits of Amazon EC2 and Cloud Computing

Amazon EC2 or Elastic Compute Cloud is not a unique service although the company is one of the pioneers in this kind of web service. Cloud computing is becoming more attractive to developers because it is cheaper, more flexible, and reliable.

You can get many benefits from Amazon EC2 or any other cloud computing platform available today. These benefits can be translated to increased productivity for your applications development ventures.

First, Amazon EC2 and cloud computing is highly elastic. You can change your capacity needs within minutes to scale your application needs. This speeds up your development process because you will not wait for several hours before the server adjust itself for your capacity needs.

Second, if you're using EC2 service, it can directly complement with other Amazon services for virtual computing and data storage. This is also true for other cloud computing providers. So, you will have a wide range of tools and servers at your disposal in order to make application development easier.

Third, EC2 and other virtual computing services offer fail safe platforms to protect your applications. Normally, these services have redundant data centers and can host your applications on several servers. So, when a web server breaks down, others will kick in. This redundancy eliminates downtimes and data loss.

Lastly, cloud computing is more secure because of excellent firewall technologies implemented by web service providers. Big companies such as Amazon would have more secure servers than a local server. This protects your data from possible hacks and malicious attacks from the Internet.

## Ways to Maximize Website Performance through Amazon S3 Services

Performance is a key measure if you want your photo storage and sharing site to succeed. That's because performance determines how fast users can upload and download photos on-site so they can share them quickly with other Internet users.

For such purposes, you can use the Amazon S3 to store large volume of image data. You can also benefit from Amazon S3 service as it offers reliable data serving and easy interface for better management of photo storage.

Here are some important steps you can do to determine the performance factor of Amazon S3 and see how reliable and manageable the service would be.

First, if you are hosting the images of your photo storage site in a local server it would be best to get the Amazon S3 services as a back-up data hosting solution. Photo storage and photo sharing can exert pressure on servers due to their large server space and bandwidth requirements.

If you are running out of space to host the image data, make a back-up on Amazon S3 in order to free some space on your local server. You will now be able to determine how your back-up storage performs especially during spikes in user activities.

You can also follow the practices of other Web 2.0 sites that use Amazon S3 service as primary data storage solution. Using virtual server eases the burden on your local server in order to improve the performance of your website. Data that

have been migrated to virtual servers can significantly speed up loading time of your website.

## What to Expect from Amazon S3 Storage When Used in Real Situations

Amazon S3 storage services have been used by individual developers and online companies. If you want a web based solution for your data serving needs, the Amazon S3 services could be a very viable option for you.

The most prominent online companies using Amazon S3 storage are Twitter and SmugMug. Twitter is a social and communication networking site and it uses S3 to store images uploaded by users. SmugMug on the other hand is a photo sharing site and it completely relies on Amazon S3 to host its terabytes of image data.

The experiences of such companies in using Amazon S3 storage in real situation could serve as an example. You can study their experiences with Amazon S3 and determine if its web based data storage service would be suitable for your needs.

To give you a fair idea, here are some key features that you could expect from Amazon S3 services.

First, Amazon's data storage facilities are reliable. Of course there could be downtimes and service outages but this is fairly normal for every web based service. S3 outages however are rare and usually last for only a few minutes.

Second, your data would be protected on S3 servers. There are no reported cases of data loss from the Amazon service resulting from the outages. You can also rely on its security features that protect the integrity of your data.

Lastly, Amazon S3 is cheaper and you will pay only for spaces and bandwidth you use. If your traffic is massive though, it would be best to determine your monthly usage before signing up for the service. Usage spikes could make S3 hosting very expensive.

## Finding the Right Scalable Hosting Service Similar to Amazon EC2

Cloud computing is becoming very popular among application developers and large enterprises. That's why it would be easy to find a service that is similar to Amazon EC2 which offers scalable hosting services.

Big names in the information and technology sector have been providing cloud computing services for quite some time now. There are also lots of mid-level technology providers that can offer enterprise-class scalable cloud computing services.

The large number of scalable hosting service providers do not mean it would be easier for you to choose one.

When choosing a scalable hosting service similar to Amazon's EC2, it would be best to compare the cost of hosting and the available service features for each hosting package. In this way, you will be able to get a service that could answer your virtual computing needs at the right price.

You must also look into the quotas and limitations of data transfers as well as bandwidth restrictions of hosted services. Amazon's EC2 has competitive data transfer packages that will be suitable for any types of companies. These could serve as your benchmark in looking for other companies that have hosting services.

You need to determine if the offered service features will not constrain your computing requirements. This is especially true if you're expecting a huge surge of data transfer the moment you migrate from local servers to virtual ones.



There are lots of options open for you when choosing a service similar to Amazon EC2. Some may offer limited computing power. There are service providers however that can be relied upon to give similar service features offered by Amazon.

## IBM Establishes a China Equivalent of Amazon S3 and EC2 Services

Amazon's S3 and EC2 are cloud computing technologies for virtual data storage and virtualization of IT infrastructures. These services are ideal for software companies and developers that need large servers and powerful machines for their development ventures.

These kinds of services are also available now in China through IBM's cloud computing facilities. IBM built the very first cloud computing center in China which is equivalent to Amazon's S3 and EC2.

IBM's cloud computing infrastructure is located in China. IBM therefore gets a big advantage over its competitors such as Amazon. That's because Chinese software developers would be able to perform virtual computing without spending big money on data transfer and bandwidth allocation.

The facilities and data centers of Amazon's S3 and EC2 are located in the United States. Using Amazon facilities as hosting platforms would make cloud computing quite expensive for Chinese software companies.

This is also the case for European companies that need the EC2 services of Amazon. They are forced to get a regional hosting service to lower the cost of virtualization and cloud computing. Although S3 is available in Europe, EC2 service and hosting is not present as of now.

The move of IBM in providing a cloud computing facility in China similar to S3 and EC2 implementation is designed to

capture the large Chinese technology market. As of now, only IBM is the biggest technology player that has virtual computing facilities in China. Google on the other hand offered its web services and virtual computing services to a big university in China.

## Hosting Full Sites or Media Files on Amazon S3: Finding the Best Solution for Data Storage

It is possible to host a full website on Amazon S3 but Amazon evangelists will encourage you to use another server to host your full site. Amazon S3 is primarily a data storage service.

Server side computing and processing of scripts is not covered by S3 services. These processes should be performed by the server of your web hosting provider.

However, Amazon S3 services can be very useful and economical if you use it to host your media files. Transfer of media files such as images, videos, music, and large documents, can slow down the server of your web site. This means slower downloads and uploads. Service interruption can also happen if these media files are handled by your web host.

That is why you will need a data storage solution like the Amazon S3 to host large files. Just redirect the traffic for download or upload request to your Amazon S3 site. This effectively distributes your bandwidth so you can avoid slow performance and service downtimes. Download and upload requests can be handled efficiently by Amazon S3 services.

In fact, there are many photo sharing and social networking sites that are using Amazon S3 data storage service. These websites host their media files on Amazon to unburden their servers.

You can also use Amazon S3 to back up your web files and documents. These archived documents will occupy important

disk space on your web hosting server. In order to distribute your archived files, simply host it on Amazon and retrieve them whenever you want.

## Why It is Useful to Know of SAAS Directory Service

A lot of people are curious about how a directory service like SAAS can be very useful for them. For one thing, it really is very efficient since it is a kind of directory service that is brought to one person over the World Wide Web. SAAS or software as a service is simply one type of web service that one can take note of. Better than the more traditional software like Lotus 123 or Word (software that originally comes on a floppy disk or on a compact disc), this software is something you can download off the Internet.

Like Google, for one – it is an example of SAAS because it is a type of functionality you simply get from the Internet. Another type of web service that is a software as a service is Google Docs. This is a type of program everyone is familiar with but not everyone realizes it is an example of software as a service. This is simple like Word with the same functionality but you use it on the Internet and you do not install it on your computer.

The great thing about software as a service is the fact that since it is not something you install on your computer, you need not make a lot of maintenance on it. Coupled with the fact that you do not need to update it, it is a very handy software to have and to use. You will always have the latest version of software as a service without needing to install anything.

## Comparing MogileFS with Amazon S3: Which is Which?

When money is involved in software, you would definitely want to get the most bang for your buck –especially when it is concerned with choosing between the top two software such as MogileFS and Amazon S3. After doing the extensive mathematical calculations, one would find out that Amazon S3 is not really as expensive as it may seem, especially when you get to the point that you factor in the opportunity costs (which is getting the head count and also looking for some good system administrators).

In fact, Amazon S3 is looking pretty good. On a more balanced level, Amazon S3 does have the same interface as that of MogileFS. But then again, starting a competing business with MogileFS being used as your store is not as good as doing the same thing with Amazon S3. For one thing, there have been a lot of users reporting that they experienced more errors in correction as well as detection when they used MogileFS. Amazon S3 pretty much has a clean slate when it comes to this problem.

It would also be a bit useless having both applications at the same time, as what a lot of enterprising consumers out there tend to mull over. When you treat Amazon S3 as another kind of host along with MogileFS that is definitely unnecessary because there are no redundancy and speed issues with Amazon S3. And of course, integrating both simply means having bigger costs when you access the Amazon S3 system using your own drives. Between the two, Amazon S3 beats MogileFS any time.

## The Benefits of Cloud Computing on Large Scale Web Applications

Any commercial development of software designed for a large user base usually falls into the category of large scale web applications. These applications will normally generate numerous hits, downloads, queries, and visits.

So, if your company is trying to develop large scale web applications, it would be best to have a plan where to develop them and where to host them.

For the development process, a large scale web application will need plenty of server space as well as computer disk space. Your computer systems should also have extremely fast memories and powerful CPU performance.

In the past, such project would involve buying new hardware and upgrade the programming software of the company. This, naturally, will cost so much. That is why most large scale web application projects are sometimes abandoned due to lack of resources.

But with cloud computing, your company would be able to initiate large scale web applications development even without buying new hardware. You can rent hundreds or even thousands of virtual computers for your development process.

You can also benefit from fast servers and huge data storage if you migrate your applications development to cloud computing. This technology allows your company to carry out projects at minimal overhead cost.



The virtual infrastructures can also be used to host your applications on the web. You need not buy expensive servers just to make the applications accessible on the Internet.

Cloud computing therefore could make any large scale web applications development successful. Your company can also save a lot through cloud computing which can promote growth because of improving profitability.

## Store Information Easily with Amazon EC2

Amazon EC2 or cloud computing is the official buzzword in the realm of computers in 2008. The first of the commercialized cloud services has been provided by Amazon, which also offers services such as elastic computation cloud and storage cloud. To consume services such as that of EC2, Amazon works by providing a very simple web service interface which users use in order to save as well as retrieve data.

Where this data actually gets held and stored is only known to Amazon. The reason why it is called EC2 or cloud computing is because if you are the user who trusted Amazon's system to store and safeguard your data, you would think it has been stored somewhere in the clouds. Such is an example of true on-demand systems which is also capable of scaling down anything to whatever need it may serve.

Furthermore, EC2 or cloud computing is very easy to use and costs very little, thus attracting many companies especially those that are web 2.0 compliant. If you have a lot of data to store, you should be advised to scatter these and not put everything in one location. With more accounts in cloud computing and more organized systems of storing information, you have a faster system running to maintain your information and less retrieval time.

As such, it is more efficient both for you and Amazon EC2 if you dispense your information across different kinds of clouds. It is the most strategic move any business person could ever make.

## Improve Entrepreneurial Efforts with Amazon Web Services

Knowing all about Amazon's web services may also bring one to consider being part of its associates program. This is also a great way for you to take full advantage of Amazon's web services especially if you are the entrepreneurial kind. With this and with Amazon's full host of web services backing you up, you can definitely have a great opportunity to sell anything you like.

From DVDs to games and electronic media, you can focus one niche market or you can concentrate on as many as you like. With Amazon's web services, even beginners can learn quite easily and catch on quickly. You can simply add some products you like on your site by just copying and pasting codes that are provided to you by Amazon. Such is a very simple thing to do and it is quite easy with Amazon's web services as your partner.

A lot of the more advanced users also choose to utilize the more complicated or advanced web services by Amazon, and you can do so yourself in a few weeks. As soon as you learn how to work the system you will end up being able to draw more users into your zone. Getting to integrate the product information of Amazon into your own entrepreneurial design, easily spells out the success for your system.

Pretty soon, you would be flooded by eager subscribers and you can handle all their requests and demands with no hitches at all, thanks to the efficiency of Amazon web services.

## Two Ways to Get Quotes for Managed Data Center and Virtualization Services

Do you have recent experience in getting quotes for managed data center and virtual computing? If you don't have any experience in getting web services quotes from providers, the steps here can serve as your guide in asking for managed services quotes.

First, most data centers and cloud computing services post the prices of packages on their websites. You will be able to view the fees or charges set for storage, data transfer, and data requests.

Normally, you will pay a monthly fixed priced for such services. However, there are web services providers and data centers that charge clients on a per use basis. So, it would be up to you to decide which service package would be suitable for your needs.

If you're a heavy user and you expect to use lots of storage and heavy bandwidth, it would be best to directly contact the customer sales service of the provider. You might be able to get a favorable deal from these companies.

Second, there are also data centers and web services providers that have online quotes facilities. Use this facility to request a specific quote for your data serving needs. This service is usually provided free of charge, so you can confidently shop for the best prices available.

Once you received your quote, you can also contact the sales department of the provider and see if you can get a better deal.

Getting quotes for managed data center services is easy nowadays. And because of stiff competition, some companies will allow you to negotiate for a better price of the service.

## AWS Elastic Cloud Computing: Make a Profit out of It

If you want to make a new web based business, you may consider getting Amazon web services in order to do. Elastic compute cloud or E2, for instance, is one good thing you may choose to consider. Simply put, it is a type of web service which allows your paying customers to rent some computers which they can use to run their very own computer applications.

This elastic compute cloud or EC2 technology lets the scalable deployment of your applications by being able to provide a ton of web services through an easy to use interface. Many of your customers would then be able to request for a wide amount of virtual machines (like servers) which they then use in order to launch any software they might need. When they do, the web console of Amazon's elastic compute cloud would let them create, launch and even terminate the different server instances.

Each of the virtual machines in Amazon's elastic cloud compute has a virtual private server which comes in three sizes of small, large or extra large (for corporate needs and massive information storage). The great thing about these sizes is that you can appeal to a wide range of clients ranging from the small ones to the really big accounts.

Depending on the needs of your clients, you can provide them with a wide host of software utilities which they will really find to be very useful indeed. You can really make a good business out of elastic cloud computing especially since it is backed up with the world standard durability of Amazon.

## The Pros and Cons of Cloud Computing

Cloud computing is fast becoming the hottest buzz word among computer users. From individual desktop user to entire companies, cloud computing becomes a viable and attractive alternative.

Cloud computing is computing on the web. If you cloud compute, you are literally using applications and storage facilities that are all web based. It is possible now to have a desktop with just an Internet browser and still perform different computing tasks.

Although cloud computing is a technology that seems made in heaven, there are still other tech experts who frown upon using virtual servers to store important data. Here are the pros and cons of cloud computing that could provide you with a good idea about this new technology trend.

For its advantages, cloud computing releases you from the desktop. Because application and storage are hosted, you can perform your job from anywhere. This opens lots of opportunities for establishing virtual offices.

Cloud computing also increases your computing power. With a desktop, computing power is limited by the amount of disk space and memory you have. With cloud computing, you will have unlimited disk space and you need not worry about processor and memory speed.

For its downside, cloud computing would be very uncomfortable if you don't want your important data to be stored on a third party server. This is the primary reason why some companies do not adopt cloud computing in work places.

Lastly, because cloud computing is web based, if you don't have an Internet connection then it would be impossible to do your job.

It is up to you then to decide if cloud computing would be suitable for your computing needs or not.



## Simple Steps in Using Amazon's Simple Storage Service (S3)

Amazon's Simple Storage Service (S3) is a web based hosting solution for data and file storage. If you still don't have any experience with Amazon's S3 service, here's a simple guide that could help you.

First, you have to go to Amazon's web services website. Carefully read the service packages that are available there. Aside from Amazon S3, you can also benefit from EC2 or cloud computing service of Amazon.

You need to review the prices and quota requirements of each S3 service package. Choose one that would be suitable for your needs. After finally deciding to host your data on Amazon, simply click the sign up button to start the registration procedures.

After registering with the Amazon web services, you can now create your own S3 bucket. This bucket is simply the file folder where you can store and organize your data. You will be able to create multiple S3 buckets so you can categorize your data into distinct clusters.

You are now ready to upload your data to your Amazon S3 bucket. You can also configure S3 so that your files can be made available to the general public on the Internet. This is important if you want your files to become accessible on your website.

You can also configure domain access from your web hosting provider to point to the URL of your Amazon S3 files. This is a good way to redirect traffic from your site directly to your

Amazon S3 files. You can now easily distribute your content without burdening your website server.

## Tips to Minimize the Risks Associated with Web-Hosted Services

Web hosted services provide companies with economical and flexible solutions for their computing needs. However, business users are still worried about web hosted computing as it posed a real risk especially when the service goes down.

Indeed, web hosted services really present a real risk for business users. Service interruption is the most common risk associated with hosted service. But perhaps the biggest risk seen by business users is loss of data.

Here are some important tips for business users which could help in minimizing the risks associated with web hosted services.

First, if you decide to migrate your computing requirements in the cloud, it is best to get the services of providers with stable business foundation. This means you need to find a web host platform service run by known tech companies.

Almost all big tech companies today will have a cloud computing service for you. Stay with these companies if you want to get reliable service.

Second, it would be wise to back-up your data locally. This will protect your company if ever a terrible crash happens at the provider's facilities. Although service providers have redundant data centers, it is practical to keep some of the most important information in your local server.

Lastly, always sync your current work on local IT environment. You can lose data if the service provider suffers a downtime. So it would be wise to work in the cloud but you need to sync this with your local desktop. If ever a service outage happens, you can continue with your work and just upload it later when the service resumes.

## Deploying an Application on Amazon's Web Services for Storage and DB

Using the Amazon S3 as a storage device as well as database works pretty well for a couple of reasons. The most important reason is that it is quite flexible in itself. You can use Amazon's host of web services as a remote storage device or even a backup server. It is quite efficient and sturdy when it comes to holding and hosting large media files, business files and even some personal files.

And of course, one cannot ignore the value for money factor since Amazon's Web Services are quite easy on the pocket. The web services are easy to use and are very user friendly. The interface is easy to navigate around and one can simply store as well as retrieve any type of data at one's convenience any time and from any kind of Web location.

Most developers love using Amazon's web service as storage and database because it is very scalable and reliable. They say that it is a very inexpensive storage infrastructure which they can rely on. Another on point advantage is that since it runs on Amazon, you have the confidence of the power of a global network of sites. This application was developed based on the objective of proliferating the benefits of the entire scale while at the same time passing on such benefits to the developers.

Having this would mean being able to run it on your computer in fifteen simple minutes. You can simply log on to the internet, connect to the system and retrieve your data from the site in perfect condition.

## Understanding Ruby on Rails Web server: Basic Information about Rails Application

Ruby on Rails is an open source application designed for web development. You can write your own codes in order to create productive web applications.

Rails is also compatible with most web servers. So, you can use this web development language on most engines. This will increase your productivity in creating web applications.

To start using Rails, you have to download it from the Ruby on Rails website. It's a free application. You can also reengineer some its behavior so you can use it based on your programming needs.

Rails is an ideal web application development tool to create collaboration sites, ecommerce, and content management systems. There are lots of companies now, from start-up to established online businesses, which are using Rails as their web application development tool.

Rails can also be integrated into several commercial database applications. It can work on MySQL, DB2, Oracle, SQLite, and other database applications. Most importantly, Rails can be hosted on any web hosting provider.

The Rails website recommends some web hosting providers who are knowledgeable in the Ruby on Rails language. However, as long as the web hosting provider has excellent customer support, you can confidently install Rails on their web servers.

For installation support on Rails, you will have to refer to the manuals provided on the Rails website. There are different procedures involved when installing Rails on different web servers.

You can also refer to online technology manuals provided by programmers and web developers. These manuals however have advanced configuration steps. For ease of installation, it would be best if you will stick to the basic procedures suggested on the Rails website.

## Amazon EC2: The Best Choice for a Self-Hosted Server Extension

The world of the Internet is a complex thing to imagine but when things are clearly laid out, the whole Internet mechanism is none but simple machinery that allows you to do everything you desire.

One of the things that people need to understand about the Internet is why we need to be hosted and if there is a possibility to host your own website. Hosting companies are the ones that provide the facilities and the instruments that will permit the hosting of our websites through and with them. Their facilities allow for our websites to be seen worldwide in continuous manner, there is high bandwidth that we can borrow from them for our website, there is a large scale of disk space available for the website, and a very reliable and dependable tool to support our website.

Now, because of the high rise in the number of websites that need to be hosted, the limited number of hosting companies and equipment does not permit all of these sites to enjoy the same benefits. This is the reason why a better alternative is always needed. The Amazon EC2 is one of the web services that can be the best alternative as a self hosting server for your website. The following are the strengths of the Amazon EC2 as an alternative host server extension:

- a. **Reliable.** Just like any other hosting company, with Amazon EC2 you get to enjoy, too the same reliability that other hosting companies provide web site owners.



b. Less Expensive. There are hosting companies that offer good packages but Amazon EC2 is a lot cheaper compared to other hosting companies.

## The Use of Amazon S3 as a Content Delivery Network (CDN)

Content Delivery Network or commonly termed as the CDN is a special delivery mechanism whereby a group of connected computers are working as one all over the Internet in order to perform the delivery of content to all people that they are servicing. This is being made in order to achieve an improved performance, wider scale of delivery, and potentially reduce the cost of delivery. All of the mentioned purposes are geared at benefiting the end users.

The Amazon S3 is one of the few Amazon web services that has been deployed to work together with the group of connected computer systems. In its aim to provide excellent web service to its clients, Amazon has deployed the AWS S3.

One of the few companies that used the Amazon S3 that works as a Content Delivery Network (CDN) is the Akami Tech Inc. – a company that provides computing avenues usually distributed, for delivery of web applications and contents. The market share that accounts to have used the Amazon S3 as a Content Delivery network is roughly estimated at 20% only. The reason for the low number of companies using the Amazon S3 as a CDN is due to the little information that have about it. However, there was a research that was conducted that showed a good indication that little by little Content Delivery Network using the Amazon S3 shall pick in the coming years as more web services are beginning to be deployed on the Internet. Apart from that, there is an expected rise in the number of companies which will eventually use this technology because of the rise in the demands for effective delivery of contents.

## How Do People Find the Amazon Web Services (AWS?)

The perfect avenue for people to enjoy all good forms of technological services is the Internet. This is the reason why a lot of people are turning into the Internet to avail all the benefits of the modern technology. One of known and well established web service providers is the Amazon Web Service or the AWS.

The Amazon Web Service is composed of many web services that people can enjoy. Below are some of the more notable services that Amazon provides:

a. The EC2 or the Elastic Compute Cloud which people who have virtual private servers enjoy the most. A lot of people think that this is quite a revolutionary technology that Amazon was able to build. This allowed many people to easily control and manage their virtual private servers.

b. The S3 or the Simple Storage Service. This is a web service that is very timely. This is the moment when people are experiencing inadequate storage resource. With the use of the S3, people will have a safer and better way of storing their personal files and documents. A lot of people think that this is one of the most inventive ideas that Amazon has ever conceived.

c. The MTurk or the Mechanical Turk. This web service of Amazon is probably one of the most complicated services that Amazon has ever conceived. Nonetheless, this is what most people think to be the highly advanced yet made simple and easy to use because of the uncomplicated and straightforward processes that needs to be undertaken to fully utilize this service.

## Why People Choose Cloud Computing over Dedicated Server: Its Advantages

Every user has its own preference be it with how every person uses the computing technology or maximize the potentials of the Internet technology. The way people see the use of technology depends on what sort of needs they have and how each technology can help them resolve their needs. Now, depending on how each person perceives the usability of that technology, its advantage becomes a variable.

Many people who use the Internet and its features see the cloud computing as the technology that bears many advantage compared to its known “competitor, the dedicated server. Below are some of the highlights that make cloud computing more preferred than the other.

a. Cloud computing is known to be very portable. With cloud computing what you generally need is a computer that is connected in an Internet and you can efficiently drive results. Unlike with a dedicated server, you will need to always bring along with you your system because all the files that you need are on a server.

b. Cloud computing is not limited to a single resource. With cloud computing, you are not limited to using what your dedicated server can provide you. With the vast resources of Internet, you are given so many choices where to draw your resources.

c. Cloud computing has better security over the dedicated servers. The Internet on its own has a very strong and reliable security. Although the issue about being vulnerable is there, security has been tightly guarded with all possible potential attacks.

## What are latest updates about EC2 AMI TOOLS?

The Amazon EC2 AMI tools (Amazon Machine Image) are utilities that are brought up using the command line environment that were designed to allow the Amazon Machine Image become bundled and able to make an AMI out of an existing system. This whole process allows a person to upload a packaged Amazon Machine Image into the Amazon S3.

The Amazon EC2 AMI tools are capable of being downloaded using the Amazon S3. These downloadable files are frequently updated, thus new updates are constantly being brought up. Below are some of the new things to expect from the new Amazon EC2 AMI tools:

- a. The new EC2 AMI tool is capable of supporting the EC2 08-08-08 version of the API or the Amazon EC2 which runs on a Windows Server and the MySQL server. This is one of the greatest innovations that Amazon was able to yield in the last few years.
- b. The new EC2 AMI tool is capable of supporting the EC2 02-01-08 version of the API which is not a common practice that we do.
- c. The new AMI tools are now supporting both the RPM and ZIP file extensions as part of their strategy to capture more potential clients.
- d. The new EC2 AMI tool has a far better improvement on its drive and mission to have this done.
- e. The new EC2 AMI has a better support out of the Ubuntu usage. And with Ubuntu around, there is no need to humiliate the person because of its social status in life.

## Combine Amazon and Google App Engines: The Best Recommendation for a Better Indexing of Documents on the Web

Google has been radically thinking about competing on a large scale with Amazon. In fact, just recently, it has launched its Engine Platform which is directly competing with the Simple Service Storage of Amazon.

The launching of the Engine Platform of Google in any way will affect the S3 of Amazon. Amazon should think about how it can be at par to the least with Google knowing how extensive Google web developers are. However, since both of the Google and Amazon's app engines are working towards having a better and highly searchable and indexed documents, it is best suggested that Google and Amazon combine their resources (web application engines) in order to attain a highly sustainable and powerful web app. This in effect will positively impact how every web documents is being indexed by the search engines.

The move to combine both of the Internet mogul's application engines will result positively in impacting the following:

a. Control over loyal members. With the huge followers of both Amazon and Google, having combined app engine will create a more credible and powerful web service. Not only that this is going to be revolutionary but more importantly, this will allow both companies to have dominant ruling in the field of web servicing.

b. Cheaper web app engine development. By the looks of it, when two companies are going to work on a single app engine, the development cost shall automatically become lower. The rising factors like manpower, resource usage, and

time shall automatically be sliced into two making it a lot lighter for both companies

## The Top 4 Most Useful Web Services

Every day that we use the Internet, we come across various applications that we use. Most of us are generally not aware that these categorically called as the web services.

Web services are the services that are made available to us either paid or free. The services that we use to communicate with our friends and relatives such as e-mail and Instant messaging are some of the more familiar ones and mostly used. Below are the top 5 most useful web services based on frequency in usage:

1. Ranked 1 on the list is the communication web service. Many people find the e-mail and IM web services as the most useful web service because it allows them to communicate with their friends, relatives, and practically anyone in the world.

2. Ranked 2 on the list is the entertainment web service. A lot of people find the video and games as the second most useful service on the web. This is quite true because a lot of surveys would show that people go to the Internet primarily to seek for sites that can make them entertained. Videos and games are basically the ones that they go to.

3. Ranked 3 on the list is the information management web service. Many people use the Internet as a “big box” of storage. They use the Internet to safe keep and store their pictures and compiled documents. There are a lot of Internet sites that offer management of information service.

4. Ranked 4 on the list is the productivity web service. The Internet is seen as one good avenue to keep people on track of their daily activities. One good web service that allows for this is the calendar service offered by many noted sites the net.



## Learning What SaaS, Amazon AWS and Other Web Services Mean in the IT Industry

The IT industry is growing very fast. As such, it needs highly advanced tools and instruments to support its whole mechanism. As a part of the development, many modernized technologies are starting to evolve and they are creating huge impact on the IT industry.

One very good example is the SaaS or the Software as a Service technology. This is the latest technology that is being used by many software developers where the applications that are being developed are hosted as services that are then provided to the client via the Internet. The fundamental reason why SaaS is gaining a lot of followers and positive raves is because of the ability of the service to be delivered in the client without the need to perform installation of the software right on the client's system before you can actually run and execute it. Moreover, SaaS eliminates the need for the client to periodically maintain the software because this is being taken care of by the web service provider. This means that the operation shall continue as long as you have the web service and healthy operation.

Another good example of an emerging technology that is making great waves in the IT industry is the Amazon Web Service. With the long list of web services that Amazon can provide to people, who would ever want to have a costly maintained dedicated server at home or in the office? Amazon Web Services or the AWS is the answer to the rising needs of people in inexpensive and practical means to facilitate all their Internet activities.

## The Critical Steps to make Legal Instances in Windows that are able to run on AMI

Generally, the Windows operating system is the major platform used to develop some of the web application engines of the Amazon and its AMI (Amazon Machine Image). However, because of some restriction issues, it is not all the time possible to create legal instance using the Windows OS and run it inside the Amazon Machine Image. A few critical steps are necessary to be followed in order to make this possible.

Fundamentally, the steps to follow are very simple to go through. All you need to have are your basic tools such as the command line shell command, the OS, and the AMI web application where you want the legal instance to be run and executed. Below are some of the steps that you can take:

- a. You need to make sure that your AMI is properly registered with the web service specifically the Amazon EC2. This is the web service that we will use in order to run and locate the legal instance. A few command lines to issue in order to have this done.
- b. Make sure that after a single instance has started on your newly created AMI, take note of the AMI identifier that will be displayed. This identifier will be your ticket in monitoring the status of any running Windows legal instance on your AMI.
- c. Start your Windows on your Amazon. You initiate this by logging on your Windows instance using the Amazon web service that you have. This will start up your Windows immediately.
- d. And finally, after having logged on to your Windows legal instance, connect to your Windows OS.

## Are There Partner Companies Working with Amazon to Build EC2 Instances?

Amazon EC2 primarily built and made the 32 and 64 bits image instances driven in the Linux made Ubuntu Server. This is the software that has partnered with Amazon in building the much needed instances of the Amazon Elastic Compute Cloud.

Since the Amazon web services are deployed using the cloud Computing and some were generally made using the open source platform, it is not impossible that there are private individuals working for a company who has made an attempt to develop and create EC2 instances on their own. The instance types of EC2 are capable of being made and built because of the available web apps on the Internet. Suffice to say, the specifications of these instances are also being given out on the Internet as part of educating web developers who wish to build their own Amazon EC2 instance.

The instances that Amazon develops are primarily categorized to fit into the needs of the web applications. They are regarded as follows:

- The small instance which is the standard and the default size. This is usually requiring about 2 GB of memory for every 1 unit of EC2 Compute. This is made up of 32 bits and running on the same platform.
- The large instance which is designed for users who require bigger AMIs. This is usually requiring about 8 GB of memory for every 4 units of EC2 Compute. This is made up of 64 bits and running on equivalent platform bits.
- The Extra large instance usually requires 15 GB of memory for every 8 units of EC2 compute.

## What Do People Perceive about the Amazon S3 Service?

The Amazon S3 web service or the Amazon Simple Storage Service is one of the most revolutionary technologies that Amazon Company has developed. With this new technology, there is now a better and innovative way for people to have their important files and documents stored and saved.

Most people think that the Amazon S3 Service with its unlimited capacity to store files via the web service interface provided by Amazon, there is now a better option and method to safely secure your stored data. As a personal user of the Amazon S3, people will realize the following things:

- a. The beauty of able to read, modify/delete, write on objects ranging from 1 GB to 5 GB of data. Although, it is to be noted that the density of the objects that you can save is limitless.
- b. The efficiency of having the object deposited on specified tray and that tray is able to accessed using a unique key that was assigned by the developer.
- c. The effective means to locate this tray in two continents of the world. What makes it more effective is that the tray is deposited where the location of the tray is however; the entities that are within the tray are accessible anywhere in the world for as long as the connection to the Internet exists.
- d. The safety and security of the stored data is highly prioritized by requiring an authentication process before any data or object is accessed. This authentication process is an assurance that data stored and kept using the Amazon S3 web service is one of its priorities.

## Working on the Web Console of the AWS S3

Web consoles are applications that are web based allowing any user or developer to have remote control over their applications or files on the web. The Amazon Web Service or AWS S3 (Simple Storage Service) has in it various web consoles that allows its users to take full control of their stored files using the computing cloud technology. As web consoles, they allow users to:

- a. Execute and run any Windows-based or Unix-based commands via their command line server.
- b. Transfer via upload and download protocols any file or data to and from the server.
- c. Modify and enhance any text file directly from the server.
- d. Periodically maintain and re-develop your website from any location that you want as long the Internet is present.
- e. Effectively and easily make corrections on your scripts especially when there are bugs that have been found.
- f. Check and control if there are any variables present on the web server and its environment.

These capabilities of the web console embedded on the AWS S3 made a lot of users grab the opportunity to own their own account with AWS S3 (Amazon Web Service – simple Storage Service, in particular).

And as for the features of the web console for AWS S3, they are relatively not new to a lot of users but apparently they have been highlighted by the following strengths:

- a. Very simple and less complicated configuration of settings and installation of other necessary applications.
- b. Absence of too many restrictions to gain access for any installation to take place.
- c. The use of the AJAX software giving a real-like shell end terminal for the users.

## The Effects of Cloud Computing Solutions to Software Developers

Software developers in order for them to be efficient need to have the right avenue and the effective tools and instruments. With the way things are going on the technology, there is a bright future that lies ahead every software developer. This is because a newly evolved technology has been fully developed that software developers can use to enhance their capabilities to better develop their web applications. This new technology is referred to as the cloud computing technology.

Apparently, with the recent developments in cloud computing, more software developers are facing a more positive software development process because of the promise that cloud computing bears. Below are some of the positive effects of cloud computing to generally of software developers:

- a. Minimized cost in developing software. With cloud computing where you use the Internet as the major platform to develop your software, you have the ability to maximize the use of the resources that it has. This gives you the chance to lessen your potential expenses in research and development.
- b. Portability. Many software developers require that they are able to access and work on their work at anytime and at any place. Since the “cloud” is nearly everywhere in the world, there is a greater chance that you can actually work on the development of your software.
- c. There is the ability to share resources. With the way things are centralized in the cloud computing technology it is most likely that as a software developer, you can get to share and enjoy everyone’s opinions and expertise regarding the software that you are developing.

## The Working Ruby Rails of EC2

The Ruby Rails of EC2 are mostly Ubuntu's server image designed to work with the Amazon EC2 and its hosting job. This hosting service provided by Amazon EC2 is ready to run under a standard ruby rail application at apparently no need to do customization or if by chance at a little rate only.

With the use of the Ruby Rails of EC2, working on the Amazon Machine Image will have a different view. And with the Ruby Rails on the work, the following shall be achieved:

- a. There is a ready and easy deployment of the Rail applications with worrying too much about to customize the configuration because the Ruby on Rails of EC2 requires less or no customization.

- b. You can achieve auto backing up of your database made via the MySQL to your Amazon S3 web service. The backing up of data is assured with a full backing of data at the end of the day and backing up made at the interval of every 5 minutes.

- c. There are Amazon Machine Image tools that are readily installed for your use. This makes it easier to re-develop and re-create any AMI that you want.

- d. There is an automatic archiving on the EC2 Rails and your Apache logged files every end of the day into your Amazon S3.

- e. With the Ruby Rails of EC2, you will have available 32 and 64 bits of images. This makes your choices wide and variety. You can then have both of these images automatically backed up on the Amazon S3 without having to choose which needs to be backed up.



## The Impact of Hardware Virtualization in the IT Industry

Virtualization is set to conquer and dominate the Information Technology in the next coming years – this is what many experts are speculating. The speculation has been further confirmed by the evident manifestations seen on many companies and even individuals who are engaging into virtualization.

What used to be virtualization of software only, now almost all resources that we see in the PC system are capable of being virtualized. Many experts did not anticipate that such evolutionary development shall be reached after the great Y2K disaster.

The moment hardware virtualization has hit the Information technology, the way natural things are done has changed – drastically, at that! Below are some of the known impacts that hardware virtualization has brought the IT industry:

a. Saving more money. The mere idea of virtualization spells a lot of resource savings, thus saving money to spend to buy all these required resources. With hardware virtualization, you can actually make it possible to allow your system to run multiple operating systems without the need to have these “physically” installed on your system, thus saving up a lot of money in purchasing licensed operating systems.

b. Efficiency in the use of system resources. With the limited access to system resources because of the expensive cost of these, the need to efficiently use your current resources is a must. Hardware virtualization allows this to happen because you can maximize the capacity of the system and all of its resources.

As the decade starts to unfold, many experts believe that the trend now in the computing industry is geared to face virtualization. Many people believe, too, that this is an unavoidable shift in managing the IT resources and the policies governing it.

## Capistrano: The Widely Utilized Ruby Applications Deployment Tool

Capistrano or commonly referred to as “cap” is one of the most widely used tools for rail ruby deployment. The Amazon Elastic Compute Cloud or the Amazon EC2 composes of the rails ruby gem that includes on it the Capistrano tasks that is specifically designed to configure and set-up the instance server that you have.

The Capistrano tool is being used via the command line. The command that is used to issue this task is known as the cap command with other parameters such as the task name to execute a given argument. Some of the widely used tasks are in reference to showcasing the AMI identifications of the image matching it with the existing gem version using the `ami_id` task as an argument; the configuration of an instance that is newly launched using the `setup` task; and how to customize the instance for the role being defined in your Capistrano deploy file using the `set_roles` task.

The Capistrano tool is working perfectly designed by running against all hosts which are presently being defined on the specific file known as the `deploy.rb`. However, even when this becomes a major drawback to a lot of Amazon EC2 users, the database management capability of it is so powerful that redeems the whole package. The Capistrano Ruby Apps tool is concurrently working with a known powerful database application known as the MySQL which a lot of deployment tool find most difficult to get associated to. Building large database is never going to be difficult with Amazon EC2’s Capistrano deployment tool.

## SaaS: Soon to be Replaced by Amazon EC2 or Google App Engine

There are so many speculations that are playing around in the computing industry. According to many experts, the time is so near when Software as a Service or better known as SaaS is going to be replaced either by the powerful Amazon EC2 or the equally popular Google App Engine.

However, even when these speculations have been creating too much hums and sounds, many experts in IT still believe that this is not coming so near. Although these experts are one in saying that the time will really come when SaaS will be replaced but it is not yet foreseen to be this soon. Moreover, these experts have cited the following reasons why Software as a Service is not yet to be replaced:

a. Although Google and Amazon have made it possible for their apps engine and EC2 mechanism to adapt in an environment where these tools are accessible via the Internet, Amazon and Google has not yet achieved the expertise of the SaaS makers in terms of centralized management of activities in a single node.

b. The SaaS is the only technology that is capable of employing the one-to-many relational database model (a process of developing one instance of database model for many database users and accessibility). This is currently being worked on by both Google and Amazon but has not yet reached complete perfection.

c. The SaaS has a centrally updated feature. This allows the software to be updated via the online making it possible to update anyone's patches and receive updated version of driver files using the web.

## Google and Microsoft: Bound to Work on Web Services using OS X

The manipulation and control on the “cloud” meaning the Internet has been pre-dominantly salvaged by only a few companies, the Amazon and the GoGrid. Amazon and GoGrid have been very successful in dominating the Internet in terms of providing web services to people using the cloud computing technology.

GoGrid is very phenomenal with its ability to install and set up Windows and Linux servers in just a few minutes without the need for a complex installation process and configuration. With the very powerful APIs that GoGrid possesses, web developers can instantly take full charge with how they interact and communicate with the infrastructure of GoGrid’s hosting system.

Amazon EC2 on the other hand is also showing off its capabilities in terms of using the cloud computing as the fundamental resource in web development. Distinct features such as the capability to generate your own Amazon Machine Image in 32 and 64 bit images are one of Amazon’s bragged about feature.

Many other web service companies are trying to replicate what GoGrid and Amazon have achieved in as far as web servicing is concerned but unfortunately, no company has able to reach that far. Microsoft and Google are few of the dominant names that are also engaged in web servicing and by far, these names have been at par with the original makers of web services. Google and Microsoft are implementing these web services using other OS platforms specifically the OS X of Mac.

Amazon and GoGrid are continuously re-inventing their web services by integrating some of the well known web applications with their own and have been very successful in the integration.

## The Use of Amazon S3 to Backup Company Data Center

Usually, companies have their own data center which serves as the facility to store and keep their systems (telecommunications, networking, controls, and storage) safe from any potential damage either caused by human or natural errors.

Many Information Technology leaders have strategic plans about how they can effectively secure their data centers. And part of the contingency plan that most IT leaders of any company have is to back up their data center facility system. However, because of the high cost in backing up all your data center facility, the IT leaders have to think of a more cost effective way to do it. One of the seen potential backup system is the cloud computing technology. The cloud computing technology offers great amount of web services that can help in making sure that all pertinent data are backed up efficiently. One of the web services that is widely used is the Amazon S3 or the Amazon Simple Service Storage.

A lot of big companies are using the Amazon S3 web service as part of the backup systems that they have apart from their own backup server system. These big companies usually use the Amazon S3 to store all the important data and documents that do not play high confidentiality however plays important to the company leaders. Many company leaders think that the Amazon S3 is saving them a lot of money to spend merely for securing their important compared to having their whole backup system accommodate all the company details.

## Why Sales and Marketing Operations refuse the Employment of Cloud Computing Model

As the IT industry is starting to fully develop, there are now more choices that people can use to apply for their personal and professional development. While these technological developments are geared towards providing real and solid assistance to generally of its users, there are still some people who are in denial to use it – or they actually refuse the usage of it.

Many company leaders still see the cloud computing technology as not a good technological option to employ in their sales and marketing operations. These leaders have yet to see what the cloud computing has to offer. But until they finally see it, their refusal to use this technology stands firm. Below are some of the reasons why cloud computing technology remains a distant option for these company leaders:

a. Sales area is one aspect of the company that requires rigid security. Although many experts have laid out their security measures about cloud computing, there are company leaders who are still taken aback with the security measures that cloud computing can provide.

b. Absence of highly technical people to allow for the cloud computing exist in the company. Although, it may seem to look that people of today are technically skilled, many company leaders are still unsure how technically fit these people are to engage in such a risky job.

c. The prevailing cost of the technology. Not many company leaders are aware of the prevailing cost to have this technology applied. It seems that not a lot of people really understand what the cloud computing is, however, we cannot put



blame on these people because in itself, it looks like the technology is really expensive.

## The Visible Impacts of Cloud and Utility Computing with the Industry's IT Sections

The presence of the cloud computing and the utility computing these days are making great waves in the Information Technology industry. Primarily because of the major shift that a lot of IT managers are doing from having a dedicated server to work for their company's IT area and employ either the Cloud Computing or the Utility Computing.

The Information Technology section of any company is after having a technology that can best serve the company he is serving. It is in the interest of the company leaders to have a technology that both benefits the company in terms of effectively saving company money and efficiently delivering its processes to produce mass output. When all of these are answered, then whatever technology is that, whether it is the cloud computing or the utility computing the company shall take full advantage with that technology.

Many experts see that in the coming years, more and more IT managers and company leaders will see the rapid transformation of their IT sections via the use of the cloud and utility computing. With these new technologies, it shall create a perfect avenue for the company's IT section to:

- a. Generate more company savings from not having to spend too much in buying technology to support the company process.
- b. Mass produce more and more technically equipped personnel that are primarily focused in learning Internet based methods to develop applications for the IT area.

- c. Take full control on the cloud and utility computing technologies as part of the company's edgy processes.

## The Different Functionalities of the Amazon Elastic Compute Cloud

The Amazon Elastic Compute Cloud (EC2) is one of the many web services manufactured and produced by the Amazon Company. As a web service it gives every developer an easy avenue to do computing processes.

The Amazon EC2 is a pictorial representation of what real virtual computing is all about and as part of the various functionalities that every developer can enjoy are the following:

a. With Amazon EC2 service, every developer can create a very unique AMI or Amazon Machine Image that contains your own preferred applications, data and objects, libraries and buckets, and any configured settings that you want.

b. With Amazon EC2 service, you at any time upload or transfer the developed Amazon Machine Image to Amazon S3, a storage facility also created by Amazon. Further, with Amazon EC2, there is always a simple and easy way to store and deposit your developed AMIs.

c. With Amazon EC2 service, you have the remote ability to configure and set up your own security mechanisms and access to the network.

d. With Amazon EC2 service, you are only required to pay and be charged for the Amazon resources that you have used example of which are your data transfer frequencies and the instance of hours you have utilized.

e. With Amazon EC2 Service, you have the capability to settle on whether you will be running in dynamic locations, or to make the running secure, you use a static Internet Protocol end points. You are also given the capability to decide whether you will be putting blocks to your objects or instances.

## Is it Safe to Host a Production Software Using Computing Cloud Technology?

If you own a set of production software that you use for your company's production process, would you go about having these application programs hosted using the computing cloud technology?

For most users of production software, they see no danger or any problem of sort in having these hosted through the computing cloud technology because they see this technology very safe as a platform to host software. However, there are company leaders who are taken aback in having their production software hosted using computing technology because of the following reasons:

a. Security. Even when the Internet is boasting about having the best security measures some company leaders are still seeing possible loopholes for potential security breach. The Internet is very transparent and visible to all possible hacking and viral attacks because of the open access system to all web services and features that it implements.

b. Deficiency in tracking and monitoring. Even when the Computing Cloud technology has guarded all the possible means and ways that hackers can use to get through the software, many company leaders see the inability of the computing technology to log and track all access that has been made on the software. Unlike in a dedicated server, there is a rigid method that is used to track and monitor all access made to the software.

c. Maintenance. Production software just like any other software requires that they be maintained. When production software is hosted by the computing cloud you will need to make sure that you strictly follow and abide by the maintenance

guidelines that it imposes on your own production software. This is never happening when the production is hosted by your dedicated server.

## Balancing Web Development with Ruby on Rails

Ruby on rails are software applications that are intended to be used with software development process having the same principle. This software development method basically promotes the following:

- a. A process in managing a project that permits several inspection and audit. This is what most software engineering should adhere to.
- b. A team philosophy that supports unity in the team, dynamism in the group, and able to organize things by himself.

Many web developers are using the Ruby on rails because they offer suitability found to be most effective on projects that are driven by the client. The Ruby on rails being open source allows many developers to freely work on the source based on the preference that they want. This makes the whole software development process an entirely personalized thing. Because of the separation of the major components of the rail structure (the Active Record, action pack, active support, and action mailer), development becomes a lot less complex and easy.

The Ruby on rails puts general emphasis on very important software development teachings lifted from the agile software development principle. This made the whole process of software development not redundant and capable of being modified and altered performing easy steps.

Recent developments in the Ruby on Rails evolve basically on the compatibility issue. Along with the numerous revisions that are made on these applications and the major functionalities

that are being added up on it, it is not likely that these revisions are compatible to work with one another.



## Getting Web App Integrated with Amazon S3

The web services that are made available on the Internet start to grow and they grow a lot faster. Many people have varied and dynamic demands that require most developers to experiment on various integrations of tools.

Have you ever heard about web applications being integrated on the Amazon S3?

Web application in software engineering refers to an application (meaning a small code embedded within a big program) that is made accessible on any compatible web browser using the Internet or LAN. Technically, because web apps are codes that are supported by browsers (codes made using HTML, Java, Perl, and others) they are capable of being easily integrated with a lot of other applications or web service prominent of which is the Amazon S3.

The Amazon S3 being a web service requires that all possible easy access is rendered and given to the user. This is the reason why web applications are potentially being seen as integral component. The reasons are explained below:

- a. Web apps are capable of being updated and maintained without the need to distribute them on all the client systems. The web apps are capable of being updated on the system where it needs to be updated.
- b. Web apps are capable of being installed without the need to have them installed on all client systems. This makes it easier and a lot cheaper to users because not all key clients may

need to have the web app installed on their end saving space and resources.

## EC2 Automating Applications Now Available

The Amazon Elastic Compute Cloud, also known as EC2, is an offering from Amazon Web Services. This product provides web services and computing power at flexible capacities. What makes the EC2 quite unique or good to use is it allows its users more flexibility to increase or decrease usage at any time. This is because users pay only what they use.

The EC2 is not without limitations though. Because it uses dynamic IP addresses, users are bound to lose websites from time to time due to a loss of a valid IP address. Fortunately, applications have been developed to answer this problem. These EC2 automating applications automatically scale the usage according to the load needed by its users. It automatically performs load balancing and gives support for failures by providing a more stable IP environment.

This makes the EC2 product truly powerful as a result. Users get the flexibility they need. And EC2 automating applications provide the support that the EC2 lacks. Users appreciate the use of such applications because it makes running their system under EC2 lighter and more efficient.

With the support these EC2 automating applications provide, downtimes of websites becomes minimal and shorter. These instances are automatically resolved by such applications by providing a more stable IP address environment. And because the process is automated, users have this functionality 24 hours a day. So as soon as a website is lost because of a lack of valid IP address, it goes up again just within minutes. Users are able to maximize on their websites too as a result.

## EC2 Management Made Easy

The Amazon EC2 provides scalability. But EC2 management requires a lot of overseeing from personnel. It can be labor intensive in terms of making sure that high traffic levels are served and other changes are adjusted accordingly. Problems can occur during sudden surge of traffic, for example. Website failures could happen so personnel are really needed to look closely into these matters to ensure smooth operations.

For easier EC2 management, applications and extensions are often offered. For instance, there's the ElasticFox. EC2 users are aided by this extension by enabling them to perform basic EC2 management tasks. By installing ElasticFox, EC2 users are able to assign IP address, spawn instances and open up ports among other functions.

Alternatively, there are applications that allows for automated EC2 management too. Such applications provide support to EC2 users by automatically scaling the usage of their system. Cyclical requirements, sudden spikes and growth are easily handled through the use of these applications. So the need for personnel to man the operations is lessened. EC2 management also becomes more efficient because problems and adjustments are handled instantaneously.

Temporary website loss brought about by unstable IP environments are remedied right away. A more stable IP address environment will be provided. So websites are up within seconds. This is how efficient these applications can be. So many EC2 users benefit from using them.

Depending on the user's requirements, some may still prefer to do EC2 management manually. However, when website

uptime is vital and the scale of operations becomes bigger using EC2 management applications would be more appropriate.

## EC2 Setup Guide Provided All over the Net

The Amazon EC2 seems pretty easy to setup. Even none experts are able to use the product. That is not to say that basic knowledge would be needed for this task. But the EC2 setup guide is provided on the Amazon Web Services site itself. This EC2 setup set of instructions are well explained. It is very detailed so one should be able to follow them with ease. The site even has a forum where questions can be posted and more knowledgeable users and the admin answer them.

There are also many EC2 setup guides on the Internet. Web developers and many individuals share their expertise on the web in order to help newbie web designers and web users make use of services such as EC2. Where the official EC2 guide lacks, these developers provide the answer.

Many of these web developers even provide guides on how the basic EC2 can be augmented with other applications so much so that the EC2 product becomes more powerful and more cost effective to its users.

This makes Amazon EC2 a viable choice for web service rental. With the flexibility it provides and the ease of management applications could provide, EC2 will bring so much to its users' systems' capabilities.

Since EC2 setup becomes easier through the guides available on the Internet, a newbie will be more enticed to embrace the product wholeheartedly. Bigger systems will know that it will be able to maximize their capabilities. Because of this EC2 even has a bigger potential for having more reach.

## S3 Consulting Firms Help Businesses Optimize S3 Usage

The Amazon S3 online storage can be used in several ways. But the draw it has is based on its scalability and competitive pricing. It provides businesses and individuals a flexible way to store files online. Some companies even earn from reselling the S3 service.

Among these many companies and individuals who want to use the S3 online storage service, many are not very knowledgeable on building infrastructure for their systems. That is why S3 consulting seems to be the trend.

Experts in web developing and web designing offer their services to the companies who want to use S3 for storage. These S3 consulting firms help adaptors of the Amazon S3 online storage service use the offering in the most favorable way for their specific needs. They give advice to these companies on their application architecture. They also assist them in the implementation of software and website that uses S3 storage.

Many of the S3 consulting firms also have solutions appropriate for every type of business. By hiring these firms, one gets the solution and one also gets the support services from planning to implementation and operation.

Security is something that S3 users also gain when they hire S3 consulting firms. Depending on their needs, secure remote access or secure wireless access can be provided. Secure guest access is also enabled by these firms. In short, S3 consulting firms do not only provide operability but they also provide overall security for the business systems. And S3 users certainly

gain when their system is running efficiently using the S3 storage service.



## Displaying The S3 Right Image Important

S3 has many applications and one common use is for storing images online. Many people have opted to store their images through S3 instead of using external hard drives. This way they can go and save as many images as they have. They enjoy using S3 since they only pay what they use.

For people who use S3 for storing images, getting S3 right image displays is very important. There have been some complaints on this matter though. Some found their photos saved. But their photos cannot be displayed. Many have been successful in using the S3 service though. So there are also some possibilities that these problems were cases of incorrect S3 scripts.

Successful S3 adapters surely were able to make S3 right image displays. S3 resellers which offered online photos storage would not have been successful if their store images were not displayed correctly.

This is not to say that S3 does not limitations especially when it comes to coding. But S3 users were able to go around it through better scripts and some add on applications. There are some free add on applications. So, it would also pay to search for them. If one does not what to look for, he can ask other S3 users what to use.

The important thing is to make sure that S3 right images are displayed when the stored images are viewed. Even for personal usage, it will be a shame if stored images cannot be displayed. And if one is using S3 for reselling online storage capacity, no one will get his services if the site has a bad reputation.

## EC2 Automation to Ease EC2 Administration

One aspect that Amazon EC2 users want is easier EC2 administration. EC2 allows flexibility in terms of scale of usage. Users pay what they use so they are allowed to increase or decrease capacity usage at any time. But such actions would require good EC2 administration. In order to maximize capacity and economize on costs, EC2 users need to balance load efficiently.

Since EC2 runs on dynamic IP environments, there's also a threat of website losses from time to time. EC2 administration therefore requires heavy close guarding in order for the website to have minimal and shorter downtimes.

With the popularity of EC2 and with users and developers seeing this need, EC2 automation applications have been developed to answer this problem. Load balancing, for example, is no longer a problem. These EC2 applications will do the job for the users. Scaling capacity will be done automatically so EC2 manual administration needs are diminished.

The problem on unstable IP addresses is also resolved. Website downtime due to this problem is remedied almost immediately so websites are up before website users even notice the problem. That's because such applications will provide the website a more stable IP environment.

Small business systems could incur problems by sudden surge and spikes in traffic level. But EC2 automation will solve this too. Because it's fully automated, each problem is dealt with instantaneously. Big businesses are also aided in maximizing their capacity.

With EC2 automation, the EC2 solution becomes a more attractive product. It becomes more powerful and more robust.

## EC2 Scripts Are Easy to Find

The Amazon EC2 is a powerful service but users would need the appropriate EC2 scripts to make it work. The basic EC2 scripts are provided on the Amazon Web Services website. Most of these scripts are, in fact, written on the EC2 getting started guide.

Again, the EC2 scripts needed to get started are already provided on the site. So one only has to follow the instructions on the guide to make his system operate on EC2. But as one begins to need or tries to add more functionality he would need more scripts for the system. This is when would have to write his own EC2 scripts or search for the appropriate EC2 scripts online.

Since not all EC2 users are expert web developers and web designers. Not all can write EC2 scripts for their own use. But this should not discourage newbie users. There are many sources for EC2 scripts on the Internet. There are quite many blogs and websites that tackle EC2. So, these blogs and websites would be great resources for EC2 scripts.

There are also many forums that discuss EC2. In these on-line EC2 communities, members would share their dilemmas and share experiences. A newbie can easily browse around and find the right EC2 scripts. One can also ask those people who already experienced same circumstances and even ask what script they used.

One can begin his search at the Amazon Web Services Developer Community. It is a part of the Amazon Web Services website. And in this forum, people get tutorials and people get to discuss problems they encounter in the use of EC2. EC2 scripts are also shared here.

## Hosting Grid: Brings More Capacity at Lower Costs

Web hosting is taking yet another turn nowadays. And this is made evident by the concept of grid hosting. The idea is to use server clusters in order to service web hosting and to provide enterprise-level infrastructure. But what makes the use of a web hosting grid is the low cost it presents to end users.

Many web hosting companies are capitalizing on the concept of hosting grid like infrastructures. They are able to provide ample disk space, data transfer capability and number of domains at cheap prices. Because of this, users are enticed to employ these web hosts. Companies, especially startups, really bite on the cheap prices.

With the popularity of this type of web hosting plans, many more web hosting companies are starting to follow. The market is steadily crowding so prices are even becoming more competitive.

Amazon Web Services operate on relatively similar manner. As what everybody can see, its services like EC2 and S3 are priced very low that many have embraced the use of such web services for web hosting and online storage. They are offered in pay-as-you-go plans as well.

Well, this only spells good news for the users of such web services. With lower web hosting costs, running and maintaining websites would then be cheaper. Companies are able to lower costs. At the same time, they are able to maximize usage on their physical hardware investments as well. In the end, their services

or products will be competitive too. This could spell more productivity and growth for the company.

## S3 Reseller: Bringing the S3 Service to Individual Users

The Amazon S3 is an online web storage service. S3 has many uses and its applications include web hosting, backup systems and photo storage. Although Amazon S3 does not promise against loss of data, S3 should be reliable considering that Amazon.com runs on the same storage infrastructure for its operations.

Since S3 is usable in many ways it also gives people ways to sell the S3 services to individuals. For instance, online photo storage solutions are being offered to individuals using the S3. An S3 reseller would benefit from this especially since S3 is scalable. It therefore allows flexibility to its subscribers.

Amazon S3 is charged \$0.15 a gigabyte per month. Of course, additional charges apply per additional bandwidth usage. Large bandwidth S3 users are given a special rate. Users who use 50 terabytes, for example, are given discounts. This is again another plus for S3 resellers.

What other S3 resellers do is provide consultancy and help S3 users to maximize its capability and usability. They help them make their systems in successfully running and in using the S3 online storage efficiently. They even strengthen security capabilities in the systems for their clients.

With the right application software, S3 resellers can have automated billing. So management for S3 reseller is relatively easy. The flexibility and the scalability truly work for them. So with a minimal payment to Amazon and an investment of the right application programs and websites S3 reselling will prove

worth it and profitable. So in effect, it is not only small and bigger businesses that are using the S3 service. Individuals are also using the service whether they know it or not.



## Every New S3 Script Makes S3 Usage Efficient

Amazon S3 scripts are found on the Amazon Web Services site itself. So, one can get started with using S3 online storage on his systems. In order to build the system and make its storage files to S3, the right infrastructure must be built first. That's where S3 scripts will be needed.

In most cases, many S3 scripts would be needed. But there's nothing to worry since S3 scripts can easily be found through on the internet. S3 scripts, for one, can be found at the Amazon Web Services Developer Community. S3 users talk on this forum to discuss their experiences and the problems they encounter in adapting S3 in their systems.

For a functionality enabled by a user another S3 script is needed. Many expert web developers and web designers write their own scripts to add functionality. But for people who find it hard to do so, they can find them in forums. There are many other forums, other than the Amazon Web Services Developer Community, which discuss S3. So S3 users can also join them to ask for useful S3 scripts. One can even find them just by browsing through these forums.

Alternatively, there are also some websites and blogs that talk about S3 usage. Many discuss about functionality and provide S3 scripts as well. So even searching for these sites would be helpful in finding the right S3 script for the functionality one wants to add.

Some people opt to hire people to hire S3 scripts for them instead. Bigger companies or people who have specialized needs

do this. But it's the best choice for them. This way specific S3 scripts are provided for their specific needs. They are able to use S3 efficiently as well.

## Automate EC2 is Amazon's Goal

Amazon is popular for selling books, CDs, and other items. But now it has opened another avenue for another processing power called Elastic Compute Cloud a.k.a. EC2 in beta program. Grid and utility computing are made available to the public with one goal: to automate EC2 via server power.

The idea behind EC2 automation is the power you can get by paying at least 10 cents for every virtual power. EC2 automation provides server power primarily to small business enterprises; though Amazon also provides their service to multinational companies.

EC2 automation was build with respect to Amazon's middleware services, Simple Storage System or S3, and Simple Queuing Service (SQS) that have been released in 2006 respectively. With Amazon's internal infrastructure and technologies that have been made available to developers, EC2 posed another technological breakthrough.

### EC2 Continues Amazon's Unique Technology Tradition

Through EC2 virtual servers of Amazon from its data centers or grids, you get power server that will only costs you 10 cents per hour for each instance (each instance means 1.7Ghz Xeon processor, a 160GB hard drive and a 250Mbit per sec, and 1.75GB of RAM) with additional 20 cents of gigabyte transferring of data.

As you automate Amazon's EC2 you only pay the power server that you only used and this is known as planned maximum capacity. To fully employ and automate EC2 you have to

upload Amazon Machine Image or AMI which you can use through Amazon API.

With simple method or EC2 automation, you basically can do anything—from powering a database, expedite downloads, web hosting, to power searching. Because of this, it seems that you actually own the power server, but in reality its actually Amazon that provides power server.

## Learn How to Create and Modify EC2 Images

Full application of EC2 requires creation of EC2 images, and in some instance modification of EC2 images. This way, you can manipulate the power of your database and eventually do everything you want to do afterwards. To make it more highlighted, creation of EC2 images will let make you most of what EC2 can do.

Amazon Machine Image or AMI is primarily based on Amazon's specifications. The AMIs you create can develop into an essential unit of deployment. This deployment lets you boot recent custom instances the fastest means or right before you need them.

### The AMI Creation

Creation of AMI can be done in two ways. The first is creation from scratch using your own machines. The second is creation through modification or image extension of the original/existing image. The modified image is the image you booted or the image you used before you gain access to EC2.

### The AMI Modification

To modify, you have to pick an image which will serve as a basis in creating a new one. You can use the image that you currently booted. Also, the already created image contains a website. The website is what you are going to change to get started with the modification process.

To modify the website, it is done via modifying the main page and configuring the static content using your name. This way, you can also personalize it because you can replace the existing content with your name. After you configured your name you can check the file and confirm it afterwards.

The final process would be uploading your image to S3 storage of Amazon so that the existing account will be replaced with the new one.

## EC2 AMI Tools: Its Importance in Cloud Computing

Scalable computation of resources is what cloud computing is all about. It is a service provided by Amazon that requires pay-per-use basis which means you only pay what power you use.

Using Amazon's EC2 AMI tools, you can access resources that are available in the cloud anytime it is needed. Resources are basically found on the Web. The so called cloud is accountable in highly available responses needed in running your applications which is sometimes called as grid or cloud computing.

Basically you can conduct cloud computing when there is a common depiction in technology's architecture diagrams on the Web—which is technically demonstrated as a cloud. In determining the scalability of cloud computing, once again, EC2 AMI tools are essential.

### Amazon Web Services Employ EC2 Tools

Command tools are essential in managing and computing resources on EC2. The REST interfaces on the other hand can be used easily because any client-written programming language readable in HTTP can also be used.

The storage system of Amazon S3 also gives web services interfaces intended for data storage and retrieval. Also, the data that will be stored can be of any sort which is still accessible anywhere that has internet.

Unlimited data can be stored using Amazon S3 and it can contain storage that ranges from 1 byte to 5 gigabyte. However,

with Amazon's EC2, S3 has been overpowered because EC2 allows more volume of data storage. With EBS, you only have to pay for the time you use and the time you compute. More so, you can increase the storage capacity of your cloud computation via launching of virtual instances which you can terminate when needed.

Therefore, with the deployment of EC2 tools by Amazon everything about cloud computing and storing massive volumes of data has been made easy.



## EC2 on Reseller News

Amazon's persistency in launching its storage intended to its Elastic Cloud Compute Cloud in the computing service industry is always highlighted. This news of ResellerNews also shows that Amazon Elastic Book Store or EBS has the capacity to create volumes for storage that can be attached to EC2 instances in the form of block storage devices and create a backup that contains snapshot accessible in S3.

Prior to ESB, Amazon storage contained in an instance of EC2 was tied to EC2 per se. This also means that if termination takes place all data within the EC2 storage will be lost. But with EBS, users can perform storage allocation volumes that can be carried on from EC2 independently.

According to Amazon CTO Werner Vogels from a blog post, "It basically looks like an unformatted hard disk. Once you have the volume mounted for the first time you can format it with any file system you want or if you have advanced applications such as high-end database engines, you could use it directly."

More so, if Amazon's EC2 instances are started and stopped, there is preservation of information that has been saved in the database. The developers, according to the post written by Vogel, have the capabilities to create storage volumes of 1 GB to 1 TB because Amazon is in fact has a massive array of volume storage.

Snapshots that can be stored in Amazon S3 can also be created in EBS. Vogel wrote, "We see developers using this feature for long term backup purposes, for use in rollback strategies, for (world-wide) volume re-creation purposes. Snapshots

also play an important role in building fault-tolerance scenarios when combined with managing applications using Elastic IP addresses and availability zones.”

## Amazon Features EC2 Functionality

With Amazon EC2, every user obtains a genuine computing setting virtually. This setting permits every user to use web services interfaces in presenting instances. Instances can be launched in different OS. It can also be loaded using custom application setting.

Management of your network's access permission is also done through EC2. With Amazon EC2 you can also run images even if you use various systems that you choose to pick.

Amazon has wider-ranging features while using EC2. To let anybody use Amazon EC2, the following guidelines to test EC2's functionality should be performed.

1. Amazon Machine Image creation that can contain applications, data along with its configuration settings, and libraries. You can also employ pre-figured data or template images in creating AMI.

2. AMI uploading directly to Amazon S3 because EC2 has tools that allow simple storage processing. On the other hand, S3 also gives safe, fast, and unswerving repository storage intended for images.

3. EC2 web services also allow security configuration along with network access.

4. Selection of instances types can also be performed. Also, the operating system that you like can be started, terminated, and monitored using a number of instances needed for your AMI. There are tools provided in doing the process.

5. Identification of multiple locations if you choose to run them. You can also employ static endpoints of IP or even affix the persistent instances through block storage.

6. Payment for the actual consumed resources such as hours consumed in instances or data transferring.

With EC2's functionality, users are exposed to various guidelines that are beneficial in making the most of Amazon EC2's features.

## The Foundation behind Backup EC2 to S3

To start off with, creating backup EC2 to S3 can be the easiest and cost effective solution to all EC2 users. First to note, S3 gives infinite virtual storage with a low cost. Backing up data, especially a massive amount of data is one strategic move in storing data. Apart from the amount of data, amount lists is also a key factor in data storage. The data stored in the file systems can be written and be read on a repeated basis as well.

So, if you are writing a large amount of data you need to create an S3-based file system. However, the creation may require a more expensive amount if you are up to large data creation. Though dumping your file can be a cost effective resort, it is not however recommendable since it requires much work.

### The ElasticDrive of Amazon and its Relationship with EC2 and S3

ElasticDrive of Amazon is needed in building file system approach that is configured for customers' benefits. With ElasticDrive, you can continuously protect your data server application. Instead of redesigning and developing an application to fully enjoy the benefits of S3, ElasticDrive installation can be done.

What needs to be done to complete the ElasticDrive installation?

The customer needs to install the system and direct their present application to either configured hard drive that uses RAID or use the new file mount. This is considered to be a flexible process. Dumping of data is no longer done regularly but periodically. This way you are assured that there is a continuous

processing of data protection through backup creation of EC2 and S3 via ElectricDrive. More so, the process of data backup automates saving a copy of a file once changes are made.

## The Importance of Creating EC2 Images

Amazon Machine Image or AMI is an encrypted file that is stored in S3 of Amazon. AMI has the entire information essential in booting the instances of your software. Instance is defined as the running system primarily based on AMI. The instances with identical AMI are also executed alike—which means, any information that will be lost will be terminated. This is the reason why you have to create your EC2 images to avoid instances of termination and failure.

EC2 involves a big cloud of images. The chances of finding instances are very steep because there are lots of images available online. This also states the idea that EC2 image needs to have an identity so when it will be picked up once booting is done.

Amazon gives what is called RESTful API which provides each instance an identity and information about itself. Therefore, you need to know the steps in creating and modifying EC2 images so you fully benefit from what EC2 has to offer.

Finally, the steps that you need to remember are:

1. Modification of existing image based on the original image.
2. Preparation for bundling wherein a snapshot is created and packaged into an AMI. The image will be encrypted to make it protected from any tamper or damage.
3. Bundling that requires uploading of certificate. You are required to use your username so your will be accessible later on.
4. The uploading of AMI directly to S3 or Amazon storage. The uploaded image will be used in signing up for Amazon's S3.

5. AMI registration is also needed so you later on trace it and to run instances that will be based on it.

6. The running of instances which already uses the modified image wherein you will also receive an instance identifier.



## EC2 Consulting is One of Amazon's Web Services

Elastic Compute Cloud is now furthering its web services by adding another block of storage. Through the Amazon Elastic Book Store, application storage of data in EC2 is made simple and direct. This is because you don't have to send the application to Amazon's other service for storage or S3.

You will get more oriented with EBS if you decide to avail EC2 consulting web service because experts are ready to give you the ideas that you should know when it comes to such kind of service.

### More On Elastic Book Store by Amazon

EBS has a simple concept. This simplicity starts when you create a volume of data that ranges from 1GB to 1TB. Then you mount the data on an instance and format it afterwards. You can also isolate the instance and then later on reattach it to other instances you choose to.

Taking volume snapshots can be also done in S3 anytime it is needed. Restoration of snapshot is also possible as long as you create another new volume from the original snapshot. It sounds simple but the process actually needs to be implemented carefully.

### The Significance of EBS

In terms of reliability, EBS has it. This is because EBS is capable of creating redundant built-ins that prevent drives to terminate or fail. However, EBS is far from S3 which replicates

data and turns it into multiple zones because EBS volume is only stored in single zone.

When it comes to volume performance EBS volumes are attached with the network disk storage. This event happens as a part of the instance is taken from the entire bandwidth. Also, the speed performance and the rate of transfer is 120Mbytes per second.

This is why EBS is considered as an enhanced web service of Amazon. Its reliability and volume of performance are more developed because of its added block storage.

## The EC2 Scripts in GigaSpaces EC2 Framework

Amazon's One Click Approach is needed in deploying EC2 under the GigaSpaces EC2 framework. In this case, application code is developed like processing units and the units can be seen on your desktop. The framework will then be set up, run, and monitored using scripts.

### The Framework Structure List

The package for Ec2 Gigaspaces framework contains the below folders and files found in the tools.

1. The Bin for Cloud Commands
2. The Default Settings in Deploying Configuration File (take note, this may contain subfolders intended for either your processing unit files or secret key files)
3. The Groovy Libraries along with Configuration File
4. The Required Libraries
5. The Sample Configurations (this comes with application that you can run so you can test the cloud)

The framework structure list also contains:

- The EC2 Commands
- The EC2 Command Flow
- The Process in Deploying the Cloud
- The EC2 Configuration File
- The EC2 Configuration File Tags
- The EC2 or Cloud Name
- The EC2 Configuration Samples
- The Management Application on EC2
- The Management Tools
- The Initialization Scripts

The initialization scripts are needed in running various EC2 commands before and after the process of running the framework or the cloud desktop. Relevant scripts need to be called during performing the EC2 commands.

Finally, some of the provided scripts for the Gigaspaces framework are: gsc-init for starting GSC, gsm-init for starting GSM, ui-init for starting UI, gsc-post-init for GSC, gsm-post-init for GSM, server-init once AMI is started, and desktop-init when the cloud on the desktop is started.

## Create and Set-Up Right Image EC2

There are publicly available requirement which you can employ in creating Amazon Machine Image for EC2. Once you selected the available images, say for example an Ubuntu image, you can start creating your own. However, this can only be done if you already have your Amazon Web Services known as AWS. If you don't have any of the services yet, you have to create one first.

Second important thing to consider in creating your image EC2 is to download the tools called EC2 command-line tools. Once you download the tools, you have to organize the tools as well.

### Setting Up the Tools for Image EC2 Creation

1. Download the tools.
2. Extract the downloaded tools and then save it to a directory.
3. Install a JDK and then set the setting variables using the command-line tools.

After you set up the tools needed in creating the image, you go to image creation proper and then follow the steps accordingly.

1. If you haven't generated a key pair yet, generate it instantly through `ec2-add-keypair key1` to generate an output.
2. The generated output should be copied and should be saved in the keys directory readable to the owner of the file.
3. Launch the generated instances afterwards to come up with another output.
4. After generating the second output, you have to connect to the generated instance by using SSH.
5. The instance should be changed by installing a custom software within that particular instance.

6. Upload your AWS, certificate files, and private key within the same instance by using scp.
7. Create your image within the current instance.
8. Generate a bucket into the Amazon S3 and then upload the recently created image.
9. Using your local machine, you then register the image and then test if afterwards.
10. Finally, link to your new instance by using SSH because you just created your new image.

## AWS Dashboard Gives Comprehensive Web Service Status

Amazon Web Services dashboard was created to provide users and Amazon's clients an up-to-date status. The AWS status publishes from time to time (sometimes even in minute intervals) information that has something to do with web services availability of Amazon.

Users and clients can access the AWS dashboard by checking Amazon Web Services website as frequent as they ought to. The current status details of web services can be viewed via RSS feeds if your clients and users want to get notified as soon as changes, developments, or sometimes interruptions take place.

The AWS dashboard has been operational in real-time. Also, through AWS dashboard any reports, issues, and inquiries about certain web services can be conveyed. For each web service presented in the table (which can be seen in the AWS dashboard) there is a link that will direct the user or client so that an issue or incident report can be addressed immediately.

The AWS dashboard is wide-ranging and easy to navigate. As the webpage opens, you will right away see a table that contains the active status of web services including the details. The detail part of the table informs the viewer whether a particular web service is operating normally, has performance issues, or has been disrupted. For each detail status there is an informational message that will guide the user/client about the real status of the issue.

The status history is also present in the AWS dashboard. This is because AWS wants to keep a tracking record or log

reports and service interruptions to better address the problem that may occur. The table contains the status history of 35 days. And so, if you click on to a particular web service the status history for 35 days will be shown.

With AWS dashboard, users and clients are not alienated with what currently happens to every web service that they employ.



## Ruby on Rails Web Hosting: Is This the Web Service for You?

To get access with key points of making online business, you have to be in contact with open-source web framework that is used in optimization and processing of other web applications.

Ruby on Rails has seen such kind of stipulation and now they are into providing web development products and services that is contained in a framework, which they offer to their clients.

What is in the Ruby on Rails package? It contains framework that can deal with web applications and developments at its fullest extent. The framework perceives everything—from view of Ajax, comptroller's request and response and to wrapping of domain model in the database. Which in turn requires you to do your part and that is: to add a database and a web server to your application.

Why do you have to resort to Ruby on Rails? Apart from everyone in the start-ups and non-profits enterprises chooses Ruby; they know that Ruby on Rail can provide them with great infrastructure needed in any sort of web application. Any when Ruby says any sort, it can be a software designed for collaboration, management of content, statistics, e-commerce or community. Due to Ruby on Rails web hosting services, everything about a particular business is made easy for the benefit of the entire business.

That is why, if hosting is essential to you, then you can try Ruby on Rails services and products. Though there is no need to say grand things about Ruby, knowing that it has established itself pretty well in web hosting is enough to get you started

because Ruby on Rails does they service with experts on their back.

## Amazon S3 Scripts: The Backbone of Web Storage Services

Amazon Web Services provide clients with extremely scalable web applications in the most accessible means. S3, as one of its services, provides procedures in file storage and file retrieval which can be 5GB (for each procedure) using Amazon's distributed servers.

Clients resort to Amazon S3 because it's cost effective, high-speed, and robust and is ideal in storing small files and images intended for websites. S3 is also essential in creating backups due to redundancy and inexpensiveness of the storage. However, in order to perform storage procedures like creating backups, retrieving storage, and other storage-related functions, the user should be familiar with S3 script configuration.

What happens when you acquire S3 services?

You acquire an access key ID and access secret ID. These keys are essential in gaining full access to AWS and to use API. S3 store files aka objects are contained in buckets. Command line utilities like scripts are needed in performing the first and last configuration in file storage. And so, creating a bucket is synonymous with storing files. This makes sense when all objects of S3 turned into binary blobs. Though you can attach metadata to the objects in S3, verification of objects cannot be done—though the files still remained compressed with source codes in it.

The scripts are needed to break the codes and to eventually handle any transactions. It can destroy or recreate buckets once proper script authentication is done. And finally to use script, it requires you to store the secret key in the form of text

file and put two environmental variables and store it in your Amazon storage system.

## The System of Hadoop EC2

To enable EC2 cloud computing, a set of host allocation is needed. The set of hosts will be run on another application and then afterwards de-allocation follows. The billing for such service is done in an hour basis per host. This is where Hadoop EC2 enters the picture, because to deploy EC2 on a cluster without owning and operating a cluster Hadoop EC2 is done. And then at the end of the month you pay the necessary power that has been computed.

It is recommended that when you choose to run Hadoop EC2 it should be in S3 because it allows accessing job data. For the record data transferring of instances from S3 and EC2, whether to or from, is completely free of charge. After such, there will be an initial input readable in S3 now that the cluster is started. And for the final output, before the cluster gets decommissioned, it will be written back to S3. This shows that temporary and transitional data go through MapReduce gates and will be efficiently stored in DFS of Hadoops.

### The Setting Up of Hadoop EC2

The processes in setting up the Hadoop EC2 are:

1. The unpacking of any latest distributed Hadoop directly on your system.
2. The editing of all the significant variables (e.g. AWS, security variables, AMI selection, Hadoop cluster variables).

After completing the initial set up, Hadoop EC2 should run a job on a cluster.

Afterwards, there will be Hadoop EC2 troubleshooting because running a program like Hadoop requires a lot of high level configuration. This means, a few configurations will take place

prior to getting the entire system functional on a set up that you have chosen.

Finally, once troubleshooting is complete you can go to the next which is building your personal Hadoop image and then making the final step: public appearance.

## Amazon's S3 Driver

Simple Storage Service or S3 is a local storage system and ElasticDrive lets you accumulate a remote storage resource like S3. With ElasticDrive, you can gain infinite and huge block device ready to mount and ready to use to perform a quick and secure isolated backup resource of storage. Block device of ElasticDrive enables operating system caching schemes and this reduces the network traffic amid web storage system and runs found at close local speeds.

### Using an Infinitely Scalable Remote Storage System and S3 Driver

ElasticDrive serves as the server in performing read and block operations to a storage resource deemed to be remote. The remote storage resource powered by ElasticDrive enables disk storing (with a huge sparse) as entities. The entities can be adjusted in portion sizes (4k to 64k size) and this can be very cost effective at all because remote storage resources can be limited as you read and write.

It is simply the completed blocks that should be written. Therefore, if the size of the object is only 4k it will not be written. The system will have to wait to finish the 64k block before finally writing the object to the remote storage system/systems.

This way, Amazon's S3 will be used as a block device of users that are locally located within an external setting of others hosts. Afterwards, S3 will format the block storage devices with your choice of file system. This can be in ext2, FAT, reiser, and EXT3Cow formats. Then finally, the saved file system will be mounted to the directory.

## Create EC2 Image Using Oracle Essbase

Many individuals are surely being amazed on the templates known as Amazon Machine Images (AMI). But since Amazon is popular as an e-commerce site; it is not surprising if they require a payment for the used time and space. Good thing, Oracle, which has recently fused to the Elastic Computing Cloud (EC2) of the Web Services of Amazon, is providing a prebuilt AMIs for registered products without any charge. The sole thing that needs to be learned is the right way to create EC2 image.

The succeeding discussions will illustrate the steps on how to create EC2 Image for Essbase. Primarily of course, individuals who are interested to set up EC2 image, particularly AMI, needs to build first their Amazon credentials as well as certificates. After this, users are advised to install Linux 4.0 of Oracle Enterprise to support the Essbase 9.3.1. This will be installed on the image of VMware with minimal configuration.

After completing the above mentioned steps, jre ([http://java.sun.com/javase/downloads/index\\_jdk5.jsp](http://java.sun.com/javase/downloads/index_jdk5.jsp)) needs to be installed next. Then, to enable the transferring of data, s3sync will be used. Although, there are also some services that needs to be switched off.

Also, since AWS is founded on Xen virtualization, a few twists to the image of VMware are needed. Once the EC2 tools have been downloaded and installed, the Shared Services for Essbase can already be uploaded; this includes the rpm.

Then finally, after the installation of Shred Services, individuals may perform a slight tweak with lessened tls. And then, complete the set-up of Essbase; after this, individuals have already completed AMI.



## Things to Take Note on EC2 Plugin and Elastic Compute Cluster that Features Python

Both the S3 Organizer and the EC2 UI are Firefox plugins, which serve as vital tools when administrating an Elastic Compute Cluster along with Python. Basically, elastic computing is a utility computing. When using this, an individual is no longer required to own a machine; instead, he can simply pay for it when he needs its function. Usually, when utilizing the tools of Firefox plugins, users are always reminded to install the Elastic Compute Cloud (EC2) plugin just before they perform anything else.

Now, when discussing the service of EC2, the usual topic revolves to its basic; normally, starting from the view of datacenter applications. Meanwhile, if the discussion will revolve on its application, it is always being highlighted to the user not to leave the machines running if they are not just needed simply because it can add up to the expenses. It has to be taken note that EC2 allots units of computation at an hourly basis. There are also the so-called bandwidth charges. This tends to be small at first until it livens.

Essentially, the basics of administrating an Elastic Compute Cluster along with Python require the following:

- **Fundamental EC2 Security:** Here, a user can identify a number of security groups, which denotes open ports.
- **The Boto Library:** This allows the user to automate the operations of EC2 through the use of Python. Meanwhile, the term “Boto” comes with a good lecture.

- Automated Administration along with Paramiko:  
This is basically a flexible SSH library intended for Python.

## Compaq's Presario 3000 Series Features S3 Technology

S3 Incorporated, the largest supplier of graphics controllers all throughout the world, was the one to release the Presario 3000 Series of Compaq that features S3's technology. Presented here is the Aurora64V+ accelerator, which will serve as the controller of the graphics.

Now, through the use of the plane panel support in the Aurora64V+ of S3, Compaq was able to include for the very first time a premium double-bright TFT flat panel feature into a good quality desktop computer. And this gives the Presario 3000 Series the capability to depict a smooth and dense desktop design that give customers with a kind of PC that will perfectly fit into their home as well as lifestyle.

Reviews for the Aurora64V+ say that this is purposely designed to take the level of desktop performance to the arena of notebook. It was also said that the distinctive and flexible style of aurora is capable of carrying extended display facilities like flat panel support. Apparently, the flexibility of Aurora matched with its unprecedented performance, color, depth, resolution, and functionality provides its users with a gripping desktop as well as notepads solution.

S3 Graphics Business Divisions Senior Vice-President Gary Johnson said that S3 is a rising leader in the ever competitive market of flat panel display, which came from in the market of notebook. And now, this is marked to move to the desktop space. He also added that S3 is currently working with top industry leaders like Compaq.

Essentially, S3 is a listed brand of S3 Incorporated, which is popular for supplying top multimedia acceleration solutions for competitive personal computer.

## Enumerating S3 Automation Services

S3 Automation is an organization that specializes in marketing, sales, and customer service. Their top goal is to help business owners with their complicated CRM needs. And for almost 15 years now, S3 Automation have provided many companies with technical support as well as trainings to different individuals. And because they are veterans in the business, they have already gained the precise understanding and experience to provide a quality service to their clients.

Essentially, S3 Automation takes pride in handling problems and providing solutions with careful attention and sincere concern by guaranteeing to provide economical solution. They have pledge not to leave the expectations of their clients unmet whenever they are drawing the final result. They also carefully usher many companies to advance their steps and strengthen their relationship with the company clients.

The following are the services offered by S3 automation:

- Analysis and Discoveries

S3 Automation provides evaluations on site. At the same time, they are also providing installations, procedures, and policies while giving out blueprints on how to optimize marketing and sales processes.

- The so-called S3 Clean

S3 Automation presents four-point diagnostics analysis and continuation of plan, which is designed to keep every company's database in great condition.

- Training

S3 Automation provides online training lectures to carry anyone who is interested to keep themselves updated to the latest information. They also give complete course material regardless of the client's location.

- Data Conversion

S3 Automation is capable to convert the current data into the system of a company. Through the provided assistance of S3 Automation, data conversion can be easily attained in the office based on the amount of data as well as the availability of consultation.

## Extensions of AWS-S3 Gem and API Copy of Amazon

American reviewer and journalist Alex Chee have written in one of his entries in the community blog of ELC-Technologies about the project he and his team handled, in which they were required to copy a numbers of files between various S3 buckets. Chee said that they were able to finish the project through the aid of the newly released beta version of Amazon for copying S3 items that time.

So, instead of downloading and uploading every file to S3, they were able to complete the task easily by using the feature provided by the Amazon. However, they also found out during the process that the S3 gem does not contain any argument to rename or copy items between various buckets.

To aid the problem, Chee together with his colleague created a fragment to the S3 gem to utilize the latest copy of API for them to accept another argument for the bucket's destination. He confirmed that this strategy is more helpful to them, especially the ability to make it. He said that the fragmented patch of the S3 gem only needs to run in their gem directory and alter the entire indications into copy and rename to contain the bucket's destination in the arguments. Chee also suggested to freeze the S3 gem before carrying out the patch in the vendor, to gems, and then to aws-S3 directory. This way, they would no longer need to change their gem for their previous projects and rupture them.

Chee also added that as the aws-S3 gem was modified; it will be more ideal to add to the static assets a Cache- Control Header as well.

## ADS Spawns Mantis Lessen Downtime in EC2 Deployment

Atlantic Dominion Solutions (ADS), a web development innovator, is said to hit downtime in EC2 deployments. ADS have introduced the sole consistent management and monitoring key for Rails apps deployed in Amazon EC2—Mantis. It is making today's businesses capable to use EC2 to level on the demand while still obtaining the reliability, regularity, and personal service that is previously restricted to customary hosting solutions.

Simply, ADS Mantis fuses dedicated service joined with prevailing management as well as monitoring tools from FiveRuns and RightScale. ADS Mantis vitally lessens the downtime by constantly checking EC2-deployed Rails apps. Through this, ADS team becomes capable to avoid quick response to issues when needed.

Robert Dempsey, ADS project director, said that customers had been doing a lot of inquiry concerning to EC2 hosting although there was really no example for it.

Also, Michael Crandell, CEO of RightScale, said that the offering of ADS Mantis significantly assists in delivering the promise of EC2 by placing an extra layer of managed services over the ability of RightScale to introduce multi-server deployments.

Currently, ADS Mantis presents three levels of service for various deployment sizes. The fundamental option watches up to four simultaneous virtual servers. Two of these are the Plus level and the Premium level. The former offers as much as eight servers and contains two hours of some other top services. The



latter on the other hand works with as much as 12 servers and contains four hours of some other top services.

## Giving the Gist of EC2 Worker's Function

Some people are simply unaware about the actual function of EC2 worker. This is why more and more queries are being raised in the online forums these days. Certainly, there are several forums online that help to find answers to someone's concern. However, a person who gave the query must still know how to separate the useful information from the thrash since not all of the posted answers that can be read here are accurate and reliable.

To provide an idea, one of the concerns that speak about the EC2 worker's role is the use of Simple DB for a small task. This is more particular if the project will require the individual who is completing it to track numbers of items such as counters. Normally, this individual will ask as to how is he going to solve the problem of not having a transaction support. Such project cannot be pursued if an individual will only have lexical support; so, a transaction support is really vital.

Some may suggest that one of a good solution in this problem is the use of token ring, which will ping all the clients when they did not respond in five seconds or so. The pinging will last until the clients do not give a reply; it depends to the managing individual. But apparently, this solution does not sound good enough.

One ideal way to solve this solution is for an individual to queue an SQS message. This is where the EC2 worker function comes in, this will be responsible in reading the message that is being delivered by the queue. More about this concern can be obtained from a good source online.

## RightScale EC2—A Powerful Fusion of Function

Right Scale EC2—a perfect combination to generate premium functions for the server. Basically, EC2 is the dealing out in the cloud service of Amazon while RightScale is a kind of system used to manage EC2. EC2 gives out a group of web services that allows the user to set up and impede server instances. But while EC2 is amazingly powerful, running the processes still require loads of work. It is certainly less involved than attempting to manage numbers of physical servers in the user's own rack. Now, the function of the RightScale service is to make the job easier.

Fundamentally, RightScale functions by offering a browser interface that permits the user to set up and impede instances. However, such function is actually not the actual strength of RightScale. Through the use of this managing the EC2 instance is not only being simplified but they are inventing a new form of service as well. RightScale is then executed whenever an instance is instigated.

Now, once the user is assured that his entire data is also in the EC2—utilizing Amazon's S3—then maintaining the advancement of servers becomes a simple task. The only thing that needs to be done is to initiate a new instance using the most recent software, do up the data from the latest backups that is stored on S3, and then position the DNS to the recent server. After the DNS modification has been completed, the user may already stop the old instance. Ideally, it is really good to use EC2 and S3 for servers.

## Unused CAB-S3-CONSOLE

Network Hardware Resale (NHR) presents the Cisco CAB-S3-CONSOLE. Network Hardware resale simply presents the complete range of used Cisco products like Cisco Memory and Cisco Routers, which provides the top levels of availability and speed.

Purchasing products from NHR is guaranteed to be trouble-free. More importantly, their entire inventory of used and smartened up CAB-S3-CONSOLE is carefully tested by the company's Circo-certified technicians to assure that they are in good condition. A lot of the pre-owned CAB-S3-CONSOLE that they normally carry are actually unused and in the new Cisco packaging.

Also, the entire NHR restored equipment for Cisco comes with one-year standard and comes with warranty as well. If in case customers raised queries about the CAB-S3-CONSOLE or any product of the NHR, the company has promised to provide installation and arrangement support from the company expert technicians without asking any additional payment.

In essence, NHR carries the largest inventory of both the present and past generation of Cisco products. Meanwhile, if in case an individual's CAB-S3-CONSOLE purchase is part of his upgrade he may consider selling his outdated tools to NHR. Certainly, an individual's surplus equipment can be transformed into working capital here. To find out how, the process can be reviewed on the company's buy back services.

However, for those individuals who want to pursue their discontinued router solutions may take advantage of the offered technical solutions as well as products to be incorporated with

their present system. The company has professional support staff that can offer solutions to assist “sparing.” This way, heavy service agreement can be avoided.

## Amazon Features S3 Plugin

S3 plugin of Amazon is intentionally written for the web application framework of the Groovy on Grails. This is basically intended to create its fairly simple to host files like images, movies, Flash and audio on the entire Web Services Simple Storage Service of the Amazon.

Presented below are the primary objectives of S3 plugin:

- Host and supervise the Amazon's S3 file assets for the advantages of storage and performance
- Give out simple mechanisms to suggest the assets of S3 host
- Create cost-effective use of S3 hosting sources

To attain all of these objectives, the plugin supplies services that will direct static assets for the media. For the first modification of the plugin, the center of attention is given to the uploaded static content of managing user. Meanwhile, later modifications will give its focus on supplying tools to shift accessible content on a website into S3. Examples of this are the items stores in the images folder.

Essentially, the preliminary plugin centers on the uploaded content of managing user. To serve as examples, the following features are provided by S3 plugin:

- Makes use of the Java library of jets3t for easy and effective upload into S3
- Small size MVC application that is contained to uploaded S3 assets of manager user to serve as executive as well as reference application.

On the other hand, the following features below are planned to be released someday:

- Give out tools to bring in assets for static media into plugin for s3 hosting
- Support habitual naming formats for S3 URL's asset
- Reporting on the usage of S3

## Why Use EC2 Console?

The EC2 console as a commercial website service under the Amazon Web Services allows clients to rent computers to enable them to run their own computer applications. It is also designed for developers. The EC2 console is said to be functional because it offers virtual computing environments that allow the launch of web services with various operating systems.

To start with EC2 console, a user can create an Amazon Machine Image (AMI) with applications, libraries, data and configuration settings or he can also use pre-configured, templated images to make it run as soon as possible. Then, he can upload the AMI into Amazon S3. The EC2 would then provide the tools to make storing of AMI simple.

### Service Highlights of EC2 Console

- It is elastic because the user can increase or decrease his capacity within minutes. He can commission as many server instances as he wants simultaneously.
- It is completely controlled because users have control over the instances. He can root access to each instance and can interact with them like any machine. Instances can also be rebooted remotely.
- The EC2 console is also flexible in a way that users have multiple instance types, operation systems and software packages. The EC2 console allows a user to select from a configuration of memory, CPU and instance storage, which he considers to be optimal in his chosen operating system and application.
- The EC2 console is also reliable because it offers dependable environments where instances can be changed and commissioned immediately.



## Why EC2 and S3 Consulting Can Come in Handy?

The Amazon Cloud Computing or EC2 and Amazon Simple Storage Service or S3 is a combination of services that offers highly scalable and quickly configurable computing power and storage. Sometimes, the administration of these resources could be problematic to computing managers and contemporary network. This is the reason why EC2 and S3 can become useful. EC2 provides developers and website providers a large datacenter infrastructure whereas S3 is a scalable storage solution. S3 makes storing files on the Internet easy and the user never has to worry about running out of disk space.

### Reasons for EC2 and S3 Consulting

EC2 and S3 are not geared for traditional web application. There is a need to make modifications. First, S3 cannot be accessed through the typical protocols like FTP. Second, EC2 does not offer static IP addresses or permanent storage. Having a typical web application without changes entirely with EC2 and S3 will not work.

This is the reason why there is a need for EC2 and S3 consulting. They will be able to offer EC2 and S3 services such as the following:

1. They can modify application codes to get the full benefits of EC2 and S3.
2. They can provide custom dynamic redundant DNS in terms of dealing with EC2's problem which is lack of static IP.
3. They can give solutions to the utilization of S3 for data storage and back-up in situations when EC2 is terminated suddenly.
4. They provide scripts and methods in assisting in MySQL via EC2 and also SVN hosting for checking out location for application code.

EC2 and S3 consulting is a good idea especially for those who doesn't have extensive experience with them.

## How S3, SQS, and EC2 Work Together?

Middle-sized and small companies can benefit from Amazon's services specifically S3, SQS and EC2. This is because these services allow companies to “rent” computing power, data storage and bandwidth on its vast network platform.

How does it work?

With Amazon services, a company has complete IT infrastructure in a reasonable payment scheme. The Amazon S3 service stores and retrieves the amount of data using application servers and offers unlimited data storage and bandwidth. Meanwhile, Amazon EC2 is for the computing time. The company can load them with an application environment, manage access permissions and run an image using multiple systems. Lastly, Amazon SQS is a web-scale messaging infrastructure, which stores messages as they travel between computers.

To make the connection between these three clearer, a good example will be an online photo processing service for consumers. The photo service allows users to tell the operations they want performed on their photos and the number of photos they want printed. Then, they wait for certain duration of time for the results.

So the first step is for the user to request results in a message being queued into the Amazon SQS request queue. During this time, the application also stores the photos in Amazon S3. The message in the queue contains the photo operations to be made and also points to the location of the photos in Amazon S3.

The photo is then processed in a server running an EC2 instance. It reads the message from the queue and processes the request. When finished, it posts a status message to the response queue.

Using S3, SQS and EC2 can be quite beneficial for those who are starting an online business or other existing services.

## Installing An EC2 RubyGems

The Amazon-EC2 RubyGems refers to an interface library that is used to interact with Amazon EC2 system and control server resources on demand from Ruby scripts or applications in Ruby framework,

How to install?

If a user has worked with gems before, then it is easy. EC2 RubyGems follows the regular procedures for installation on any system with Ruby and RubyGems installed.

First, the user needs an AWS account. He needs to have an account, which is specifically enabled for EC2 usage. After signing up, AWS will give the user an AWS Access Key ID and a Secret Access Key. These will authenticate any API calls that the user make and ensure correct billing for his use of the service. The user must remember and keep these IDs a secret.

Second, he needs to install the required EC2 RubyGems pre-requisites. The following should be installed: XmlSimple, Mocha, Rcov and Test-Spec. The first is required whereas the last three are optional for testing. Those, which are used, for testing are needed for testing build dependencies. Even if the user is not planning to make tests, he can install them because it is easy to do so.

Third, the user can install the EC2 Ruby Gem. He must remember that he can install this only once.

Now that that user has installed RubyGems, he should be ready to run applications using gems. But there is still one thing to consider. He must let the Ruby programs know how to use the gems repository.

## What Are the Benefits of Managing AWS?

Amazon Web Services or AWS gives companies, whether big, middle-sized or small, an infrastructure web services platform. It offers IT infrastructure services that any companies would need. It is also very flexible because a company can choose its preferred development platform or programming model. Further, managing an AWS means that a company only pays what it uses. There is no up-front expenses or long-term commitments.

Why choose to manage AWS?

First, managing an AWS is cost-effective. There are no contracts and commitments. All a user needs is to sign-up with a credit card and then he can cancel his account online whenever he wants. He pays what he uses and there is transparent pricing or no hidden prices. It is also said that managing an AWS promotes better economics because as the number of applications running increases, then the number of operations and hardware costs are amortized over users.

Second, managing AWS also saves a lot of time. Running the IT infrastructure on AWS would enable a user to concentrate his energies, time and money on other important aspects of his company.

Third, managing an AWS means that a user is contributing to a better environment. How is this so? Datacenters and technologies used to cool and power AWS hardware are built in a way that they enable smaller environmental footprint. This doesn't sacrifice flexibility and scalability in the business demands.

Fourth, managing an AWS means that a user is having a reliable, battle-tested, web-scale infrastructure, which can handle everything.

## Amazon's Elastic Compute Cloud: An Able Program as Aid

In any area of web service management, one of the hardest to accomplish is the web-scale computing. Of course, most website developers have either found ways of coping with this through other means or by adopting better to their tasks.

This is most likely the reason why there are now programs being developed and launched for commercial uses that respond to this problem. One such program is the brainchild of Amazon. It is called the Amazon Elastic Compute Cloud (Amazon EC2), which is wholly a web service whose sole function is to provide the developers with resizable computing capacity. This computing capacity is found in a cloud.

With this program, the expectation is that it will make web-scale computing easier, which is a hard task to do, for developers. The good thing about Amazon EC2 is its very simple web service interface, which allows the developers to configure the web-scale capacity with minimal friction involved. Because of this simplicity in the web service interface, it could even provide the developers with complete control of the resources present for the computation with added backing from Amazon's products.

This means that for every time the developer is computing, he will have an able program aiding him in the process. This ensures that the amount of time spent on the computing would be lesser than what it usually entails without the use Amazon EC2. And everyone knows that less time spent, results to profits, or at least allows the developer to pursue other tasks. Now that's an incentive to try!

## Elastic Compute Cloud and How it Reduces the Amount of Time in Computation

There are of course too many reasons why developers should pursue EC2 as a program to use. This is a must-have program when computing web-scales, which developers are known to dislike. Computing web-scales is not something done with just a flick of the fingers. Rather, it is something that involves a lot of details, and a lot could go wrong.

In using the EC2, the developers are not only taking the easy route through the problem, but they are also relegating tasks to a program very suited for it. This is because EC2 has been designed and created to reduce the amount of time, which is required in obtaining and booting up new server instances.

This reduce in time spent is often counted in minutes, which gives the developers the time allowance to scale capacity. And scaling the capacity is done, both up and down while the computing requirements of the page changes.

Another factor that is really noteworthy about EC2 is its capacity to create changes on the elements of economics that is required in the computing process. Thus, this provides the developers with knowledge on how much to pay for the capacity to be used.

This is savings that may seem small on some people, but on the whole, it is still savings.

And in today's world of commerce, savings mean a lot of things, and none of them are bad.

Another function of the EC2 is that it is currently the best program around to use in giving the developers the right tools to

protect the website from failure. This also means that for every common failure already known, there will always be applications to be suggested by EC2, along with other applications for future failures.



## Scale Right with RightScale

In the wanting to have a good program to rely on times when there's a need to compute clouds of web-scale, there's always RightScale to try. The company is considered as the foremost leader in terms of bringing EC2 to any person's need for aid in clouds.

This, of course, does not mean to say that they compute 'clouds' per se, but clouds in today's web computing tasks. With the use of EC2, computing them is even easier and as an added incentive, RightScale has been making moves towards making EC2 even more capable of computation.

Now RightScale has a website available for clients and it is best to check them out.

And don't be fooled by the language, RightScale or scale right, the main thing to remember is RightScale for clouds. As web developers know, computing is not an easy task, not with the changing of requirements and capacities every now and then.

EC2 can help the developers in setting this correctly and efficiently. In efficiency, EC2 through RightScale can help the developers to know how much capacity is required and this limits that cost of buying capacity that might not be used at all.

In terms of protecting profit, this is a welcome addition to a program that is already the best at what it does. RightScale also aids in increasing the available security of the web itself, in terms of securing the network access to others. So whether RightScale or 'Scale Right' is used, it's easy to distinguish between the two. RightScale works and Scale Right are just words.

## AWS Console: Improvements and Automation

In the early 2006, Amazon.com was able to release to the public its program called Amazon Web Services (AWS). AWS was intended to be used as a tool for the computation of power, storage as well as other services. And the companies that ultimately used this were those that required an up-to-date infrastructure web services platform.

Of course, the use of AWS has increased since then, and today it is still treated as a revolutionary platform worth having. Now the use of AWS console is that the data to be gained from the AWS is presented in a manner that is easy to see and examine, as well as improved.

In terms of improvements, which in no way affected the program badly as to perform slow in its tasks, the AWS console is fitted with the best program codes available.

This makes the act of flexible changes in the IT infrastructure services easier than before and accordingly as when it is demanded by the business.

One of the best known goals of AWS Console is to provide the developers with as much management over the disposable servers. And it is so easy to use because it is simply a point and click matter, owing to many automation improvements like the saving automatically.

It is also easier to manage, unlike past programs, and could provide a standardized scalable framework to work on. Apart from these, AWS consoles are also able to work on many

accounts being worked at by a single user, which allows the developer to use it for multiple clouds.

## RightScale and The Merge with Eucalyptus

The need for better services in computing web-scales is pushing more and more companies towards better EC2. For one, the forerunner and known as the leading company involved in EC2, RightScale has now combined efforts with another team of experts from the University of California.

This team, known as the Eucalyptus, would forge two leaders in cloud computing management together. This makes EC2 something forth having in the near future, as now, there will be more focus towards research and experimentation. This is vital as the task of cloud computing is an ever-evolving matter.

As the functions of the web increases, so do the varieties and extent of cloud computing.

This merge would mean that the EC2 maintained by RightScale would now focus on the clouds developed by the Eucalyptus team for the purpose of experimentation.

Furthermore, this merge is seen to affect the distribution base of EC2, which has so far been limited to only a few.

With this merge, it is expected that even universities and students alike would be able to benefit further from the results of the partnership. Aside from these, another likely result of this merge is that there will be improvements on the currently released program by RightScale that features cloud management on multiple cloud environments.

All in all, it is not foolish to think that there will be other improvements on the EC2.

Besides, an improvement to be added to a system that is rearing to go full-scale into the market is a welcome change.

## Tips for a High Performance Ruby on Rails

Web application needs to be updated or at least improved in terms of performance. An object-oriented programming language framework, which was designed to provide high performance development of web applications, is called the Ruby on Rails.

Ruby on Rails does provide several caching methods to help developers improve the performance of their web applications. To improve performance may require modification of queries Active Record create or create manual ones. It is important to determine if improvements on performance is required by analyzing the application's performance.

Ruby on Rails has been known to ease the development, maintenance and deployment of web applications. To increase your web application performance is to observe some of the following tips:

1. Use of the embedded Ruby interpreter of the Apache web server “mod\_ruby”. This allows the Ruby code to execute faster than other CGI methods.

2. Use of the “fcgi”. Fcgi means FastCGI, a language independent, scalable, open extension to CGI, which gives high performance without the limitations of server specific APIs. The entire framework is cached when the fcgi is enabled. Fcgi has 10x performance.

3. Use of Cache static pages as transparent buffer of disk-backed pages kept in the Random Access Memory (RAM) for quicker access.

4. Use of C binding for the database rather than the native ruby based “Active Records”. It is not hard to install c bindings.

The Ruby on Rails automatically distinguishes if c bindings are installed.

So stop writing typical web applications and use the Ruby on Rails default settings. Ruby on Rails eliminates most of your configuration code and provides you a rich set of utility functions, which makes web applications performance simpler. High performance Ruby on Rails means higher conversion.

## What EC2 Is All About

The cost of acquiring a server to run your applications requires a big investment. System developers, particularly the newer ones, may find it too expensive to own. But as developers, you need to start things going and Amazon has introduced a new web service known as EC2.

EC2 is the acronym for Amazon's Elastic Compute Cloud. It is a commercial web service where customers pay and rent Amazon's computer in order to run their own computer applications. This means customers can do massive scale loads of applications through web service interface based on their request for arbitrary number of Virtual Machines. EC2 is referred as elastic since users are able to create, launch and terminate server instances on demand. EC2 is one the web services under the Amazon Web Services (AWS).

EC2 allows customers to launch instances, which are similar to the traditional remote servers. It takes a matter of seconds to get the resources, compared to the traditional providers that will take days or weeks for the resources to be delivered. With EC2, web applications requirements are provided any time whether the request is for 10, 100, 1000+ servers. You are able to host and run your applications on Amazon servers in increasing or decreasing capacity depending on your needs.

Users of EC2 have no server capacity limit. Amazon's EC2 services do not require customers for long-term service contracts or pay a minimum amount to use the web service. EC2 services are on a pay as you go usage basis. This means you only pay Amazon based on the capacity that you used.

## Understanding the Web Servers Running on Ruby on Rails

The application of Ruby on Rails require developers to have a run time environment where they could execute the code services of all incoming and outgoing requests and responses. The use of application servers are needed for Ruby on Rails.

### Three Ruby on Rails Application Servers

1. Mongrel – This has a fast HTTP library and server for Ruby. It provides high performance Ruby on Rails application server required to execute Ruby code quickly and efficient use of resources. Mongrel is licensed under the ruby License. To install Mongrel is to install it using RubyGems and run the Ruby on Rails application.

2. Thin – Thin is a Ruby web server that brings together the 3 best Ruby libraries, which includes Mongrel parser, event machine and rack. Mongrel parser is the root of Mongrel speed and security. Event Machine is the network's input/output library having high scalability, performance and stability. Rack provides a minimal interface between the web servers and Ruby frameworks. Thin is considered to the most secure, most stable, fastest and most extensible Ruby web server.

3. Passenger – The Passenger is also known as Phusion Passenger. It follows the Ruby on Rails convention of the “Don't Repeat Yourself”. It is built on the industry standard of apache web server. It uses about 33% less memory if the Ruby Enterprise Edition is likewise used. There is no maintenance required, no port management, no server process monitoring or stale file cleaning required. All errors are recovered automatically if possible.



Select among those three as to where you would like to run your Ruby on Rails for your web application.

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