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Table Of Contents	Page
What is colocation	4
When choosing a colocation provider	7
The Basics On Colocation	10
Disadvantages of colocation	14
A Colocation Must	17
Advantages of colocation	20
Before you get colocation services	23
Choosing A Colocation Provider	26
Choosing Your Colocation Backup	30
Colocation And Systems Redundancy	33
Colocation Extras	36
Colocation Magnified	39
Colocation Managed And Unmanaged Services	42
Colocation Myths Exposed	46
Colocation Pros And Cons	50
Colocation Security	54
Costs related to colocation	58
Dedicated hosting vs colocation hosting	61
Understanding colocation more	64
Extra fees in colocation	67
Is Colocation Right for Your Business	70
Managed and unmanaged colocation	74
The Benefits Of Colocation	77
Tracking Colocation	81
Two Faces Of Colocation	84

What is collocation

Internet has altered the business landscape these days. Now, companies need to take care of Information [Technology](#) aspects of their businesses. If you are running a small, home-based, or medium-sized enterprise, you surely are very much concerned about Web hosting. Other than that, you may be considering collocation.

What exactly is collocation? Is it necessary? To begin with, collocation is a Web hosting option specifically designed and structured for small businesses. The service is particularly suited for minor firms that aim to enjoy features of huge IT departments, but without the adjoining and appropriate costs. Most huge corporations and [businesses](#) invest in major online infrastructures so they could be able to host their very own Web servers. They even employ numerous IT professionals who manage and at the same time [design](#) their online [sites](#).

Small and independent running companies are usually not capable to do the same. That is because logically, such minor businesses need to take care of other operational costs. Their capital and resources are limited. However, for such small firms, there is currently a broad range of options from simple Web hosting to running Web servers from a dedicated online connection. One option for the latter is collocation. There are more than enough reasons why small businesses prefer to use collocation.

Collocation is allowing a small business to place its own server machine

into another business' rack. They may agree to share a single bandwidth. In general, colocation is costing more than the usual and standard Web hosting. However, it is less costly compared to the amount needed to buy and operate a bandwidth on your own.

Once a [machine](#) set up is oriented, it could be physically relocated to the site of the colocation provider. This way, it has to be installed into the rack of the bandwidth owner. Another option is to rent an online server machine from the bandwidth owner or colocation provider, which then gets the responsibility to provide an IP, power, and bandwidth into your [business'](#) own server. When the system gets up and running, your business could easily and conveniently access it just like you could access a [Website](#) within the domains of a Web hosting provider.

This way, it could be easily inferred that colocation is an important [process](#) that small businesses should opt for. If a small firm is aiming to save on costs but could not afford not to own a bandwidth or server, colocation truly is a necessity. Small companies that need to run [blogs](#) or personal Websites do not need colocation. Instead, they could opt for Web hosting services. If a server is required because there is a need for more robust online operations than what Web hosting could provide, colocation is the best option to take.

One word of caution, though. It may be difficult to find and deal with colocation providers. A business operating in a community where there are other existing businesses may proceed to ask other larger companies if they are offering colocation services for small players.

When choosing a colocation provider

You are actually entrusting your Web server to another company if you decide to get into a colocation service. That is why you should be very careful and cautious when choosing a colocation service provider. You would need a server that is reliable and trustworthy because your IT requirements are at stake. You simply could not choose just about any provider that comes your way.

You should be familiar of certain factors. First, determine if the service is managed or unmanaged colocation. Colocation service is simply more costly than normal Web hosting. But it is something your [business](#) needs. Managed colocation is more expensive than unmanaged colocation. That is because the provider is committed to provide everything from [tools](#), [software](#), and applications to maintenance of the server. Unmanaged colocation is less costly but you need to be more technically adept because you would be responsible for your own server usage. However, it could give you more flexibility.

Other factors need to be considered. The first is facility. Know where the server would be physically located. Under a colocation service agreement, you do not need to have a space for storing your server. The provider would take care of it. You would be like renting that space for your co-owned server.

Be particular about the physical infrastructure. You know that natural

disasters could inevitably occur. You have to make sure the server as well as all the data contained is always kept safe and free from any physical harm from the environment. The security and access to the server is also important. You certainly would not allow just anyone to get into the location of the server. It is important to be rest assured that the server location and storage facility would only be accessible to authorized personnel all the time to avoid possible sabotage.

Not all online connections are made equal. This is the reason why you should be particular about the bandwidth involved. Look at the IPs or Internet providers involved. If you intend to use features like private name servers, anonymous FTP, or [game](#) servers, you need to demand for multiple IPs. Your Web host must be checked so you could determine how many IPs provide servers, and of course at what cost.

Look at support options. This is particularly important regardless of what type of server hosting you use. Make sure personnel working on the servers are knowledgeable, reliable, helpful, and trustworthy. Find out about uptime guarantees provided. It is important that your server host set proper guarantees regarding performance of the Internet connection.

Find out about cross-connect service, which is a more advanced feature that comes with colocation. You could physically co-locate your Web server with a provider while at the same time you get an [online](#) connection service through another host. There could be additional costs, called the cross-connect fees.

Lastly, be particular about your colocation contract. Be reminded that the fine print is very important. Do not overlook terms of the service, contract duration, fees, and uptime guarantees.

The Basics On Colocation

Colocation is basically a service supplied by a data center company to IT companies to locate their network, server and storage systems inside the facilities of the data center company. This service usually includes interconnectivity to a variety of telecommunications and other service providers.

With today's busy internet [traffic](#), online [businesses](#) are looking at ways to cut down costs, which is mostly consumed by bandwidth expenses.

Large businesses have the [money](#) and the space to build and expand their own data centers and hire more staff. Small to medium-sized businesses (SMBs) generally choose to place their IT infrastructure in another company's facility.

The following are the major components needed to make your company's forage into cyber business a success.

Operating systems (OS)

There are several network operating systems to choose from. However, the two most popular ones are Linux and Windows NT.

[Linux](#) is a practical option well suited to the demanding network setting. It might be more complex than the others, but it is more secure and efficient.

Less susceptible to malware infection, Linux runs on almost any type of hardware.

It might not be as comprehensive as the others, but experienced IT administrators liked its superior functionality. Linux systems permit access to its kernel source [code](#).

Windows NT is popular and brings with it the familiar [Windows](#) interface to the network server environment. It is easy to use and allows its simple point-and-click method in server operations.

It is also a perfect environment for 3rd party software with database access to systems like MS Access, DB2, Oracle and MSSQL.

Hardware

For colocation hosting, the hardware to be used is as important as the operating system. The most widely-used platforms now are Cobalt, Intel, and Sun.

Cobalt is perfect for managing multiple sites and is popular in the field of server hardware. Sun is not far behind in reputation regarding fast and efficient hardware. This is also true for Intel which is typically more affordable for average administrators.

Network card / hardware / [memory](#)

Because NIC (network interface card) is what enables an internet connection, be sure to avoid cheap [products](#) sporting unknown [brands](#). You will reap long-term savings by investing reliable NIC that can support your network activities in the long haul.

Different servers need different memory and hard drive speed. Choose reliable, top-of-the-line hardware (or those approximating its standards) that your company can afford.

This is to preclude frequent changeover since newer, faster models are always on the horizon. Of course, the more memory you can buy, the more web pages you can [store](#). The faster is your hard drive, the faster your server can access data.

These are some of the major components needed in setting up your IT [business](#) by way of colocation.

Colocation – wave of the future

As a business setup, colocation is now favored by most of today's companies and organizations for its security, reliability and redundancy – all for a minimum cost and complexity.

Also, with colocation, there are reduced traffic back-haul costs and your company enjoys the benefits of freed-up internal networks for other uses. Moreover, there is greater bandwidth capacity and considerable improvement in access speeds to [websites](#) if network traffic is outsourced

to a colocation service.

Disadvantages of colocation

In a [business](#), costs do matter. Surely, you need to spare capital to be spent on other operational and functional needs. One of the main and important business aspects is colocation. Through this process, small firms could be able to own their own server [machines](#) without actually buying and using one. In colocation, a small business is made to co-own a server. Thus, the costs of a major or huge server could be divided into two, making for greater operational savings. At the same time, the company co-owns the server but it could demand rental fee from the other firm.

Are you considering colocation? You are not alone. For sure, there are many other people or small businesses that are looking for timely colocation options. There are several known disadvantages of colocation. First, colocation providers could tend to be very difficult to find. It would be better if your location is near other small companies, which may own and operate their own servers. If you are not living in a major or huge city, you may have slim or no chance at all to find any colocation option.

Second, disadvantage would involve costs. It should be noted that colocation is actually more expensive than the usual and basic Web hosting. You need to manage and maintain your own server. When the server requires an upgrade, there is a need to buy hardware and install it. Always remember that colocation is more costly than Web hosting but it is also much more effective and useful for a business.

Third, colocation could make physical access to a server more difficult for any small business. You need to take your server into the location of your colocation provider. Your [business](#) could opt to pay for rental for the space used by the server or you could rent for the colocation service offered by the colocation provider. Traveling and relocation of your server could be hard and challenging.

Fourth, if ever you decide to move out of the location of your colocation provider, you could take a couple of options. Your small business could move its servers to a new colocation provider in the next venue of the operations. The other option, and the more preferred and used, is to leave the colocation services and servers where they currently are. The small company would only need to keep a maintenance contract.

Lastly, fluctuating prices of costs could serve as a major drawback to businesses. An abnormally huge online traffic amount could cause a colocation bill to get much higher than usual. Remember that the monthly cost could depend directly on total data transferred. A small business could not possibly regulate or control online [traffic](#) into its server.

Is colocation an ideal prospect your small business should continue? It should be. The process is intended to help and assist small businesses and even major ones that intend to lessen operational costs by diminishing expenditures on online servers and infrastructure. Colocation has always been important.

A Colocation Must

Space is a significant facet of a colocation facility. The specific size and condition of this physical area affects the performance of the server. There are two terms that refer to space in colocation. These are racks or Us and cabinets.

The rack [design](#) has been officially made to have a measure of 19 inches. This has facilitated for standardized sizes of networking equipment especially computers and easy placement of these equipment inside the racks. The 19 inches here refer to the spacing of the horizontal mounting for each stand or cabinet present in the actual server site.

The height of the machines and devices placed inside the rack used to have variations but then an official size was determined to arrive at a more universal height. The U or standard height unit entered the fray. Its measure is about 1.75 inches. The number of Us marked on a specific server component indicates its height. For example, majority of the present networking devices like switches are 2U while drive arrays are 4U.

The number of Us needed to put up the hardware within the colocation facility is utilized to indicate the base price of the server. Large 2U systems can cost more than that of a single 1U server. Moreover, server costs are influenced by the cost and equipment required to fill up the space.

Expansion [cards](#) located in desktops usually function better when they are housed inside a 4U server case.

Cabinets are 47U racks that are commonly used for equipment mounting. Cabinets are tagged as closed or cage when a locking door panel is present. This increases the amount of security for the hardware placed inside the colocation site. These racks are the ones usually handpicked by larger companies that demand more space for added servers and storage arrays.

There are cases when providers would suggest a $\frac{1}{4}$ cabinet when they think that a machine is not mountable in a rack. A $\frac{1}{4}$ cabinet which is around 12U is part of the variation called partial cabinet. There is also a $\frac{1}{2}$ cabinet which has a measure of 24U.

Providers do not only help customers via the space they have for rent. They also offer alternative [power](#) mechanisms that are systematically installed within the site. During unwanted power breakdowns backup power sources come to the rescue. In order for these sources to work in good condition the provider must have a clear picture of the system's power usage.

Amps enter the scenario and create a relationship with the amount of space needed to push through with the server setup. It is up to the provider to assign a specific number of amps. The usual ratio would come as one to two amps for every U that is part of the rental.

Now that you have an understanding of the role space plays in colocation services it's up to you to determine how you can effectively create a facility

that will help [boost](#) up the performance of your hardware. Make sure that you pick the best offer from a company that is competent enough to maintain the very heart of your [business](#).

Advantages of colocation

Are you considering getting into a colocation arrangement? It could be a very wise decision you would take. Colocation would enable any [business](#) with limited capital and resources to own an online server at much less costs. The business could own a powerful server machine at half the total price by co-owning it with another company. These days, colocation is [gaining](#) more popularity. The reason is quite logical. Here are the main advantages of the arrangement.

Of course, the main advantage of colocation is that the cost of bandwidth [ownership](#) and operation is halved. For instance, a low-cost bandwidth DSL line for business grade with limitations may cost just about \$150. With the same price, you could enter a colocation agreement with another company so you may be able to enjoy a facility or server with much higher bandwidth speed. This arrangement is more advantageous if online operation is crucial to your business.

You could rely on colocation facilities for better outage protection. During a long power outage, it may be necessary to operate a backup generator. Doing so would enable the server to continue running. If you are in a colocation agreement, your colocation provider would take care of this problem. If you are the colocation provider, you could use the arrangement to lessen the costs your business would shoulder on operating the costly backup generator.

In a colocation deal, the provider and renter co-own the server machinery. This [way](#), if the machine gets too slow or if it lacks enough memory, they could easily, quickly, and simply upgrade that server. There is no need to wait for a third party or for a service provider to come and do the upgrade. More control is rendered to both parties, which is always advantageous.

Both owners of the server also own the server software used. There is no more need to rely on a hosting provider for the installation of [tools](#) or software to be used. The colocation provider could do it on its own. If the company decides to use ColdFusion or ASP, it needs to simply purchase and install that software without any hassle.

If there is a need to move, a small business could opt to leave the server up. It would run the entire time. The small [business](#) does not need to relocate the server as well. It may remain at the site of the colocation provider. This makes the whole process very convenient and ideal. What's more? The colocation provider could also opt to bring about additional security for the machine. The server could be stored and at the same time maintained in a highly secured environment.

Most colocation servers are offering services allowing them to manage and maintain a server for an additional cost. This option is specifically useful if a small business does not employ its own reliable IT team. It is also useful if the office of the small firm is physically far from the location of the colocation provider.

Before you get colocation services

If you own and run a small business, it surely is your goal to keep costs to the minimum. There are just too many expenses you must shoulder to keep your [business](#) going. You surely need to own a server if you intend to keep an online presence. Because doing so would translate to huge expenditures, it would be more advisable if you would instead prefer colocation.

Colocation is the process of co-owning a server with another business. There are many companies these days that offer the service. Such firms have developed, reliable, and efficient IT systems that enable them to offer colocation to other businesses. Getting into the service is like 'renting' your server. The provider would take care of the physical location where the data center would be kept. It would also attend to the maintenance and system upgrade of the entire server.

You could have your server on a remote location. This would give you total flexibility. Imagine, you do not need to keep your own data center. The colocation provider would also take care of everything from [software](#) and hardware upgrade to system-wide maintenance and more. However, before you get into any colocation deal, it would be helpful if you would check out the following simplified guidelines.

1. Do a simple research about companies offering colocation services in your area. You may gather facts about the reputation and business practice

of such businesses. You surely do not like to make [business](#) with an unethical and very expensive colocation provider.

2. Read the terms of services provided by the colocation provider before agreeing on anything. It is advisable that you focus primarily on the fine prints. Usually, there are dubious and onerous terms and conditions hidden in those usually neglected areas of contracts. Do not hesitate to ask and clarify things if you think there are grey areas in the terms provided.

3. [Check](#) out the duration and many other provisions in the contract. Yes, you would be signing a contract for the service. While it may serve as your protection as a consumer, it may also function as an impediment should you decide to suddenly cut ties due to poor service. You could not easily get out from a colocation agreement until the service term duration specified is met. That means you would keep on paying your monthly dues to the provider even if you decide not to use the service anymore. You would not like that [idea](#).

4. Find out about the fees. Typically, on top of the fixed costs served on a monthly basis, there could be other services that require additional costs. Such services include remote hands, DNS hosting, IP addresses, and server backups. There are services like rebooting that are included in the package. However, if you exceed limits in use for a month, additional charges might be applied.

Before you ink a deal for a colocation service, make sure you really need it. Otherwise, you may prefer a simple [Web](#) hosting service, which is less

complicated and much cheaper.

Choosing A Colocation Provider

Web hosting businesses (which may include yours) usually start small. However, as you grow, [investments](#) in hardware and others also grow by leaps and bounds. As online [business](#) trends go, colocation becomes a viable alternative.

Outsourcing one's entire operations to an offsite data facility of another company takes one hard punch of decision-making. Of course, this kind of decision should not be done without the usual preparatory probes and questions.

Costs

As in everything else, the first consideration in any business transaction is costs or the prices of the services or goods. Nobody wants to overpay but the old adage of “you get what you pay for” still holds true.

In effect, your search in terms of costs should focus on quality instead of the “advantage” of a cheap price. The low investment outlay might be countered in poor service or some such aspects. It could result in expensive (from your company's standpoint) downtimes cause by poor facilities or services from your colocation partner.

Support

With web hosting, support availability is critical in a colocation setup. This is one very important aspect in your choice of a colocation partner.

Most colocation companies offer support 24 hours a day everyday by way of phone and [emails](#). Others offer help in live chat sessions and support tickets. However, there is a need for a fast turn-around time because problems can happen just as fast in trying to connect or set up the server.

Redundancy

In a [business](#) that deals with very critical data and information exchange, it is essential that the facilities must be redundant. This means that power, connectivity and cooling systems must have backups and extra sets for use during emergency situations.

The colocation facility must have power backups in case of power failure (extra generators and UPS units). It must have extra connectivity systems in case of hardware crashes. Ventilation and cooling systems must be backed up by another [working](#) system to take place in case of emergencies.

Guarantees

Is there some kind of a [money](#) back guarantee with your colocation provider? Because of competition, some companies offer several perks and other deal-sweeteners.

At the very least, there are those who offer a 30-day money back guarantee to prove their confidence in their [product](#). This might lessen some of your frustrations once you are dissatisfied with their service and decide to change hosts.

Waiting time

The old saw “time is [money](#)” still holds true with colocation and more so because yours is in the web hosting [business](#). Avoid any colocation host that requires you to wait for more than a week to get your server running.

If a company takes an inordinate time to get your company connected online, this same kind of service might be duplicated in those critical times when you need their support.

Your choice

There are factors to consider in deciding to go into colocation hosting, and these are all specific to your present situation. If your [finances](#) are limited, a dedicated server will do for the moment.

If you are sure of colocation hosting is best for your company, make sure you evaluate your prospective colocation providers as thoroughly as you can. The life of your company depends on it.

Choosing Your Colocation Backup

Backup and storage are two of the most important factors in the search and selection of a colocation facility. Mission-critical information that cannot be compromised needs to be stored and backed up in a very secure environment, whether it is in your own servers or in a colocation facility.

With the number of choices in the [market](#), it can be a tough decision considering that it can be difficult accessing your storage and backup needs. Fortunately, these systems can be integrated with one another and can still work seamlessly.

Choice

To ensure you make the most suitable choice, it is best to first determine your system's storage needs. Determining the solutions (and combinations of solutions) that meet your requirements would come easier, especially in a colocation setup.

Fortunately again, there are three basic types of storage and backup solutions for your servers – DAS (direct access storage), NAS (network attached storage) and SAN (storage area network). Knowing them and what they can do by themselves and in tandem can help in making your decision.

Direct attached storage (DAS)

Most of today's businesses use DAS in the storage and backup system of their data. For comparison, DAS is basically similar to most external hard drives of personal computers where they can be attached at will.

This is one storage system that is best for smaller businesses which do not have demanding storage needs. The major downside, however, is that your system is slowed down while storing [files](#) and running your applications all at the same time.

This is simply caused by the fact that DAS solutions are limited in capacity and is not really that appropriate for large-scale storage needs. If your [business](#) is booming, it may serve as a temporary [solution](#), not a permanent one.

Network attached storage (NAS)

NAS works by having additional capacity on your server while keeping it separate from your running applications. It is perfect for businesses that use networked computing.

The big selling point for NAS is enhanced productivity and cost efficiency. With NAS in place, your server can be managed centrally without affecting the other networked servers that run your applications.

Storage area network (SAN)

Among the three, SAN is the more advanced data storage and backup system. It is best for larger [businesses](#) that require a system's ability to transfer multiple files in more stable fiber connections.

However efficient it is (and becoming more popular), SAN is one solution that is relatively new. Moreover, it lacks the compatibility needed to make it more appealing to more customers.

As it is, SAN is greatly more complex and expensive compared to both DAS and NAS. Today, only the big companies who can afford it are using SAN as their main storage and backup system. The biggest reason is its ability to handle the high volume of [traffic](#) that is becoming the norm of the [internet](#) business at present.

Ultimately, the choice of your company's storage and backup system depends largely on the size of your present needs and costs. In a colocation facility, your company's continuing expansion can be supported with the right storage and backup system.

Colocation And Systems Redundancy

For medium and large-scale businesses, colocation is turning out to become more and more accepted. Outsourcing the facilities of your [business](#) (housing the equipments in another location) has become cheaper and more convenient.

One risky point that has to be addressed, however, is the question of inadequacy in the redundancy of their facilities. Most colocation facilities, thankfully, are built with the time-tested principle of redundancy.

N+1 [formula](#)

In a business of virtual information and systems, redundancy is factored in to ensure security, based on the N+1 blueprint. This means that any particular system must have the capacity it needs, plus one additional unit.

For instance, if the power system has two UPS (uninterrupted power system), both should be running only at a 50% capacity. In the event either one fails, the other can take over without overloading. There are three critical points in a colocation facility that must have redundancy.

Power

The biggest consideration for redundancy in a data center is the [power](#) system. A power outage could bring down your server hardware, your

climate controls, your fire suppression system, and your connection.

In effect, a single failure and the whole operation goes down. In view of this total disaster, there is a need for the host to have a redundant set of power sources that includes UPS (uninterrupted power system) and backup generators.

Cooling

A small personal computer has a set of air pumps and [fans](#) inside to keep it from overheating. In a busy colocation facility with several servers running at full power, the amount of generated heat can crash the whole place in [minutes](#).

Colocation facilities are always to be equipped with redundant cooling systems that stay operational 24 hours a day everyday. These are usually taken up by CRAC (computer room air conditioning) units that pump cold water through the server room to prevent hardware overheating.

Connections

For a company's [business](#) to enjoy the best in a colocation setup, connectivity must also be redundant. This should be true for both the service and the network hardware (routers, switches, etc).

A redundant service would ensure that multiple [internet](#) backbones are available for reliability and performance. In addition, the connectivity levels

should be able to ensure low latency and packet loss. This means that even if a major backbone fails, your connection should still remain stable and your site still [online](#).

The right colocation

To find the right colocation facility for your business means asking pertinent questions and extracting as much information as possible from prospective candidates. It is a given that these facilities are unique and they have the right specs and redundancy measures.

Still, you need to find the correct specifics for your own system to fit theirs, especially with regards to power, cooling and connectivity systems. You need to know the number of units (for your present and future projections), the load per unit and how redundant their systems are.

When you hand down your infrastructure to another company's data center, it is only fitting that you have to be selective in terms of your needs in the redundancy of their power supply, cooling and connectivity facilities. In a colocation setup, your [business](#) depends on the reliability of your partner.

Colocation Extras

The dominant billing issue in colocation normally involves bandwidth and space. But for some providers extra charges must be given in order to ensure that the servers are well kept and secured. Let's take a look at some other items that may increase your expenses.

Rebooting is very important in addressing server problems and performing [software](#) upgrades and enhancements. But in cases when the server is in a remote location rebooting can only be done using a remote connection. Remote reboots are the weapons of colocation providers during these times. You can simply call a support hotline to request for a power cycle. There are instances when remote reboot services are only charged after a specific number of times the customer asks the provider.

When server problems are more complicated and simple reboot of the whole system is not enough providers can bring forth remote hands. These are technical support crews who can expertly handle troubleshooting chores. They can easily respond to whatever hardware or software problem that is causing the server to function inappropriately. But make sure you can match their hourly rates as their services are not part of the basic package.

It is common practice that alongside a server there would be a [domain](#). More than one domain names can be present in a solitary server. Providers can give you DNS servers that can house all of your DNS files. They allow

for several domains to be part of their offered DNS servers. Domains that are not part of the initial deal will definitely give you extra fees to think about each month.

In colocation most of the time IP addresses are provided in a limited number. Even though servers commonly demand for a single IP address there are cases when site features call for additional ones. Of course it would be plain simple that each IP address in excess with that stated in the contract will equate to additional charges.

A backup mail server is important in ensuring that no mail bounces back to the sender especially when the server goes down. This is made possible by having the back up server act as a storage medium until the server functions normally again. Colocation providers will ask for additional payment each month for particular [domains](#) that need backup mail servers.

There are instances when physical access to the server box is called for in order to solve problems or perform upgrades. When there is limited space for a monitor, keyboard, and mouse to be linked with the box a console is utilized to create a connection between the KVM switch and the server. Again this can result to another monthly charge.

The presence of a server in a colocation facility deems it susceptible to any attack within the World Wide Web. The security of the system files can be placed in serious jeopardy. At this point, the provider can offer to have the server protected by a firewall. By doing so server access is restricted to specific ports and these ports will give you more fees to think about.

Colocation Magnified

You have decided to set up your small business and one of the vital components on your list is a site that can showcase your [products](#) and services to the [market](#). At this point you know that all you have to do is choose from a wide array of web hosting selections. You don't have to look further and dig into complicated details because colocation is just the right thing for you.

Colocation has been the common choice for budding businesses that demand the high-tech functioning of a well-versed IT team for the simple reason that the price is just right. But what really is this colocation all about? Let's take a look.

You start by getting your own hardware. You then contact a provider and kick off the machine set-up in their own rack. Once the servers are physically present the company provides the power, bandwidth, and IP to your servers. You get full access to the system just like any other web hosting but the big difference is you own and control the machines.

Furthermore, you get your [money's](#) worth in terms of bandwidth. The standard rate for the bandwidth of a [business](#) grade DSL line runs between 150 and 200 dollars. For the same rate or even cheaper a single server can be built in a colocation space handing you higher speeds and better redundancy.

Outage protection is another issue that can be easily handled by colocation facilities. There may be environmental and technical factors that can lead to energy source breakdown. This will give your [site](#) a really long slumber. The good thing about being connected with providers is that you are paying for backup power generators designed to face any kind of outage.

As mentioned above the good thing about being colocated is that you have authority on all your machines. If you start to see that the server is beginning to function slowly or there isn't enough memory to carry out all the tasks then you can simply proceed with the upgrade. There is no need to wait for other people to act on your behalf.

[Software](#) is also important in ensuring the performance of your site and since in this type of hosting you are the absolute owner you also get to choose which ones to install. You don't need to seek the permission or advice of your provider. You get to choose the internal elements that you think can help your server run even better.

Stability is another boost if you're collocating. If there comes a time that you have to move and you host your own domain you have to painstakingly deal with the actual transfer of the domain and the downtime of your site. But since you've chosen to have a facility that houses your server then you just go on with your activity while having the peace of [mind](#) that your servers are up and running.

In colocation you are assured that your machines are kept in a secured area. You can also opt to add some extra fees to your provider for the

maintenance of your hardware particularly when your office is too far from the site or you don't have the manpower to do the [job](#).

Colocation Managed And Unmanaged Services

Most small and medium sized [online](#) companies are now into colocation, the outsourcing of data centers in offsite colocation providers. Their major reasons are the security in [power](#) and data storage, fast access for their sites, and lower bandwidth costs.

Just like dedicated servers, colocation solutions come in two distinct types of services – managed and unmanaged. For those still on the lookout for colocation providers, it is best to understand first these differences and their exact requirements before choosing a colocation data center.

Your choice whether to use a managed or unmanaged colocation service can have a significant impact on your [business](#). These include such factors as how much maintenance is needed to be done, what things can be run on the server, pricing and others.

Here is a short rundown on the differences on managed and unmanaged colocation services.

Managed Colocation

Right off the bat, managed colocation is the best option for businesses that do not have the time and the IT resources needed to maintain their equipment. With the service, your company is spared from performing manual [tasks](#) required to keep your system online.

Managed colocation is often referred to as dedicated server rental. The provider has a dedicated server already configured to certain specifications for use by their various colocated clients.

Services

Their services include the use of the other requisite services, including maintenance like reboots, solving hardware issues and backups. The client will simply move their equipment and run their [business](#) right away.

This arrangement is useful for people who are not technically inclined and do not have the time or the resources to handle troubleshooting and other maintenance chores.

Disadvantages

There are disadvantages in this setup, the most significant of them is the high price for the pampered treatment. There are also restrictions such as only supported applications are allowed to be run on the servers. (You may NOT use any [application](#) needed for your [site](#) if it is not supported by your provider.)

Unmanaged colocation

Choosing unmanaged colocation gives you and your company greater flexibility. This [freedom](#) of choice comes in handy when deciding the

hardware, [software](#) and the other components you want to include in your server.

You can, in effect, install applications needed by your requirements but are not supported by your provider. You have more control on the configuration and use of your server, which is the opposite in managed services.

Access

Depending on your contract, your technical people can come and go to the facility as needed and perform the tasks in regard with your equipment. The disadvantage here is that your people must be available to [travel](#) to the colocation center in times of trouble which is always unpredictable.

Comparison

Finally, it should be clear that managed and unmanaged services cater to two different [customer](#) needs. If you have the IT resources (including the staff), an unmanaged service will work best.

The managed version, on the other hand, will allow you to move your hardware and leave all the technical aspects to the colocation services people. All in all, it is best that you know these differences and their consequences on your [business](#).

Colocation Myths Exposed

In the small and medium-sized [business](#) circles, colocation had gathered some of the more off-the-wall myths. Probably because it offers solutions in a totally different background, colocation is prone to misconceptions.

Unfortunately, these myths can cloud perceptions and certainly affect decisions. The following are some of the more oft-repeated and widespread myths on colocation going around that you need to know.

Inconvenience

Convenience does not depend on the host you choose and where they keep their data. Today, your IT staff can remotely handle most equipment and configuration work.

It does help to have your staff and your equipments close to each other, but on extreme cases, your people can always go to your colocation site to upgrade equipment or [software](#).

Still on the plus [side](#), your colocation facility can provide more space and better equipment organization.

Uncertainty

Depending on your own security implementations, your colocation

equipments are generally more secure in a colocation facility. Because it is their business, colocation companies equip their facilities with the latest in firewalls, IDS (Intrusion Detection System) and the assurance of a solid physical security (duly monitored cages).

This level of security and the wide array of security technologies may not be affordable for small [businesses](#). Also, the staff of colocation facilities keeps your security patches up-to-date themselves.

Another web hosting scheme

There is a huge difference between a web-hosting deal and a colocation arrangement. In web hosting, your site's programming [code](#) is located inside another business server which is owned by the web hosting company.

In a colocation environment, your company's equipment and [software](#) is physically located in the colocation company's data center. Your company's site has its own server and support components.

Web hosting companies usually handle thousands of web site users which your company has to share. In short, your company located in a colocation facility does not compete for critical server resources, bandwidth, storage and CPU. Glitches in other web sites (that usually happens in a web hosting setup) do not affect your business site.

Unreliability

Most colocation centers have redundant Internet connections, power sources and backups. Usually, they run at minimal capacities (less than 80%) so that competition for bandwidth is done away with.

Also, colocation centers employ IT professionals to handle outages and other technical problems on-site.

Limited support

Colocation services have all the support for their clients – physical and network security, [data](#) recovery, power systems, and more. These companies even offer customer service by way of emails and phone support and where IT professionals can be reached.

Managed service contracts are available to keep your company's servers fine-tuned, including hardware and software upgrades. The support is only limited by your budget for these colocation services.

Inflexible

Some colocation services offer servers and other components but they can be flexible. This happens when all you rent in a colocation facility is space and connectivity where the servers and the software belong to your company.

This is where you control over what [software](#) runs on your company's

servers and how powerful those servers can be. On the other hand, the speed of servers and the available [software](#) to run them in a web-[hosting](#) arrangement are limited to what your host company can provide.

These are some of the more popular myths perpetrated by people who are less familiar about the nature of colocation and its advantages.

Colocation Pros And Cons

Colocation is now one hot buzzword in the web hosting industry. For some who have been into the setup, it simply means ease, less maintenance, and more control over their web servers.

The storage of your system in a well-maintained facility and which you have access to greater transfers and smoother operations are big plus factors in convenience. The amenities provided by colocation centers would have been very expensive if done in-house.

As in all things, of course, there is always an upside and a downside to the colocation setup.

Advantages

On top of the list of colocation advantages is the lowered cost of bandwidth and other related resources. This gives a large potential bandwidth at a price determined by the actual amount used.

Moreover, because of the redundant systems (including those of security) and multiple backbones, internet connections are incredibly fast.

In colocation setups, you own your hardware and software components. (Installing and upgrading your own [software](#) is not available in conventional web hosts.)

Colocation hosting also provides better protection against power outages. These are guaranteed with backup generators, power sources, and internet backbones.

Security protection

This same provision is also true in terms of security and internet connection. Other enhancements include fire detection and suppression systems, backup cooling, physical surveillance, and multiple backbone connections.

There is greater flexibility afforded by colocation providers that surpasses both dedicated servers and managed hosting. As a client, you can choose your own servers, your hardware, software and other configurations that suit your system best.

Disadvantages

On the other hand, the biggest downside to colocation is perhaps the unavailability of colocation centers that is both reliable and one that suit your needs. If you have the staff, you would want the facility to be nearer your [business](#) to reduce travel time.

At present, colocation centers are mostly located in larger urban areas near major network hubs.

Expensive

Compared to managed hosting, colocation is more expensive. This is because of the costs in purchasing (or leasing) of [software](#) and hardware components alongside with the actual rent of space. There could be extra fees for maintenance.

Compared to leasing a dedicated server from a web host, colocation needs a much larger capital investment. Again, this is because of hardware and software costs coupled with that of actual space rentals.

From a respected IT magazine, reports have it that today's monthly costs of low-end quality servers range from around \$4,000, and \$9,000 for those with mid-grade hardware. With half a rack of space, there is an additional fee of between \$500 and \$700.

For purchases of routers, switches and other vital network components, you may need to fork over around \$2,000 for low-end models. Lastly, you need to have a network interface card, an element mostly overlooked when deciding on a colocation setup.

Of course, all these do not yet include your staff's wages, insurance, hardware depreciation or backup equipments.

Suggestions

Like any other business moves, you are not supposed to decide whether or

not you will use colocation until after you have evaluated first your personal requirements. From a practical point of view, you must cover all the bases before you decide your move.

Colocation, like any other alternative in [business](#), will always have its good and not-so-good points. It is only through your own assessment would you know the correct choice.

Colocation Security

In today's context of [online businesses](#), the operative word is colocation. This is the setup where web hosting companies chose to colocate their hardware and infrastructure to third-party service providers.

One of the big reasons is to take advantage of the many advanced security measures the third-party service providers offer.

Because they collect a sizeable pool of [income](#) from their clients, colocation providers have invested top-of-the-line security hardware and [technology](#) for their system: physical protection of the servers and other equipments, safety of data and applications, and their protection from natural disasters like floods, fires, power failures and the like.

In choosing your colocation provider, you can take a look at these protection measures in these following areas for comparison purposes.

Redundant power sources

Nowadays, accidents and other devastations regarding power and power sources are unpredictable and can wreak havoc in a data center. Utility companies used to be dependable, but today's demand for power has grown so much faster than anybody can anticipate.

Today's colocation service providers have already incorporated the

installation of backup generators that run longer. One generator is no longer viable given the unpredictability of public power sources.

What is more, they also have redundant generators that back up the primary units. Multiple power source alternatives are already today's industry standards.

Physical access security

Another critical area that colocation providers offer their clients is on-site security. Actively monitoring and controlling access to the building is a critical factor.

Aside from the must-have physical security measures, colocation providers now include biometric access systems. These systems generally include fingerprint and retina scanning for verification of people's identities.

So far, these modern sets of apparatus have been far more effective than the now-outdated key [cards](#). (They were notorious for being easily stolen and duplicated.)

Other colocation providers have installed motion-activated surveillance cameras that can monitor activities outside and inside the facilities' premises. These [cameras](#) have been versatile enough to cover even the grounds surrounding the buildings.

Network access security

Normally, colocation clients are responsible in ensuring that their server hardware is protected with security software. On the other hand, colocation providers must also protect their clients from threats triggered by outside [agents](#) as well as from within the network itself.

One example is the now-debarred practice of one client cross-connecting their servers with the other tenants. The main reason is simple reduction of costs.

However, it also introduced a tremendous risk in the sense that if one client is compromised, the attacker is able to access the system of the other clients who had cross-connected for cost savings.

Many colocation providers have now forbidden this practice and had taken severe measures to make sure cross-connecting is not feasible or will not happen in their facilities.

Risk sharing

In colocation setups nowadays, both the provider and their customers are expected to share the ongoing common concern for security.

Compromising security is the greatest threat within this partnership. After all, it shall mean a total [loss](#) for the customer (sensitive data) and the colocation partner (confidence) where nobody wins.

Costs related to colocation

Basically, colocation is a service wherein a small company is made to rent or co-own a Web server, which could be originally owned and run by another [business](#). Many companies offer services to other firms or to individuals who need to own their own server.

Colocation could be managed or unmanaged. Managed colocation services are those that provide full service to a customer. The colocation provider agrees to take care of everything from maintenance to provision of software and applications. The user could rest assured that the server is properly taken care of all the time. This service is best for small companies without sufficient and competent IT support team.

The unmanaged colocation service is the more preferred by companies or individuals with technical expertise and skills. This colocation service allows the user to take a greater control of how the service would be used. The customer would be required to provide and use its own software, [tools](#), and applications. This service is less expensive compared to the other.

There are usual costs associated with the use of colocation servers. These are rental fees and connection charges. Before you get into any colocation agreement, it would be appropriate if you would first be more exposed and familiar with the two.

Rental fees are costs associated with having the server located or stored in

the colocation provider's own datacenter. The measurement is usually the height of the server being hosted. In most cases, servers are in 1U or 2U configurations. In other cases, servers could be significantly larger, about 3U or 4U in configuration. In simple terms, a user is made to rent the use of the Web server. This is actually what colocation is all about.

Connection charges also apply. Instead of measuring total volume of gigabytes being transferred every month, connection average could be preferably used. For example, in a 1 mbp/s connection, the user has an average of 1 megabyte of data transferred every second for a whole month. The concept of fees associated with colocation could get further complicated.

There could be issues about how the data transfer is actually measured. Some take the amount or volume of bandwidth used within a month. The number is divided by the number of seconds in the month. The more popular option is the use of the '95th percentile' wherein the bandwidth measurement is actually taken every five minutes. By month-end, top 5 readings are discarded. The highest remaining [reading](#) that is left is what is used in billing the user.

The second issue regarding colocation involves burstable connections. There could be a higher transfer rate when there is a sudden burst. Using the 95th percentile, there is no need to make sure the connection is burst more often.

In the end, costs are influenced and dictated by the colocation provider.

You have the option to agree or disagree on how billing would be computed. It is important that before you get into the colocation agreement, you fully understand what is up for you in your use of the service.

Dedicated hosting vs colocation hosting

A dedicated server could be best for your [business](#) especially if you are particular about your [online](#) presence. You would not need to share your IT resources. At the same time, you could set up and run your own server as you please. Have you decided about renting or buying your own server? In dedicated hosting, you are actually renting a server from a willing partner or [Web](#) host. You could take the option to buy your own server or have a host provide you with the necessary facilities that would house it. This particular service is what colocation is all about.

Dedicated hosting and colocation hosting share almost the same advantages. You could own resources or an entire server and bandwidth so you could do whatever you please to do. There is an additional benefit of dedicated hosting over colocation: you could enjoy lower cost. This is because in dedicated hosting, you own your own server. You would not incur monthly fees on upkeep and hardware maintenance. However, your initial outlay surely would be much larger because you are buying the server. Your overall costs could be lower with colocation especially if you think the server is of high quality and it could last longer.

Costs associated with colocation could depend on the total amount of space that the server would occupy. Servers are housed in racks within data centers. Such racks are housed, in turn, in cabinets. The colocation providers are like renting out spaces for servers. This means you do not need to allocate such space in your office. Your server is remote.

There could be several additional options when buying a server and placing it in a colocation data center. You could purchase a server locally especially if you live in close proximity to the allocated data center. There is an option to set it up at your very own premises. For your convenience, you may also acquire the server from a reputable mail order or [online](#) retailer. It could be delivered directly to your data center in no time. This is recommended if your location is far from the data center. Shipping costs would be eliminated and you could be spared from possible damages to the server during its transport.

Colocation simply puts you more in charge of your hardware. However, that means you are also taking full responsibility in case there would be hardware failure. As mentioned, the major advantage of colocation as compared to dedicated hosting is its incurrence of lower monthly costs. Other benefits include bigger control over your network configuration. Of course, there could be better and greater flexibility.

The colocation provider needs to be chosen very carefully. This is because such service host would handle your data and hardware. When getting into any colocation service, do not forget to consider many important details like network redundancy, security, calamity protection, and backup generators so you could be sure your server is always up even when there are inevitable power outages.

Understanding colocation more

Are you considering getting colocation services for your business? Doing so is practical. You do not need to maintain and keep a server physically if you intend to own one. You may buy your own server and have another company take care and maintain it. This is recommended if you do not possess the technical expertise and if your [business](#) lacks a comprehensive and wide IT administration.

Colocation is a Web hosting option specifically designed and structured for small businesses. The service is particularly suited for minor firms that aim to enjoy features of huge IT departments, but without the adjoining and appropriate costs. Most huge corporations and businesses invest in major online infrastructures so they could be able to host their very own Web servers. They even employ numerous IT professionals who manage and at the same time [design](#) their [online](#) sites.

Colocation is allowing a small business to place its own server machine into another business' rack. The two may agree to share a single bandwidth. In general, colocation is costing more than the usual and standard Web hosting. However, it is less costly compared to the amount needed to buy and operate a bandwidth on your own.

Managed colocation, also known as dedicated server rental, makes use of a preconfigured dedicated server. The selected software and applications within the service could be used within limits. Additionally, the provider is

also taking responsibility in providing software upgrades to provided applications within the system. It includes general maintenance like backups, reboots, and hardware issues. This is specifically useful to small [businesses](#) with limited IT resources or individuals who do not have the technical expertise and inclination. It is also recommended to firms with less capability to handle mundane troubleshooting as well as maintenance.

If you aim to have a greater control over your need for a server, unmanaged colocation is for you. This service is ideal if a technical [requirement](#) of operating or running a server is demanding applications not supported by the colocation provider. As mentioned, you may opt to take a bigger control over configuration and your own use of the Web server. This way, this type of colocation service is different from the managed colocation.

Usual costs are associated with the use of colocation servers. Rental fees are costs associated with having the server located or stored in the colocation provider's own datacenter. The measurement is usually the height of the server being hosted. In most cases, servers are in 1U or 2U configurations. In other cases, servers could be significantly larger, about 3U or 4U in configuration. In simple terms, a user is made to rent the use of the Web server. This is actually what colocation is all about.

Connection charges also apply. Instead of measuring total volume of gigabytes being transferred every month, connection average could be preferably used. For example, in a 1 mbp/s connection, the user has an average of 1 megabyte of data transferred every second for a whole month.

The concept of fees associated with colocation could get further complicated.

Do not be surprised when there are additional charges imposed for the services. Such extra fees could actually be assessed based on items required for the support of the server. You have to look at several common and additional fees you may encounter. Some colocation providers are including services in base prices so be sure to carefully read all the terms in your contract. Extra charges are usually incurred from services like rebooting, DNS servers, remote hands, IP addresses, and server backups.

Extra fees in colocation

Most fees associated with common colocation services involve charges for usage of bandwidth and server space. However, do not be surprised when there are additional charges imposed for the services. Such extra fees could actually be assessed based on items required for the support of the server. You have to look at several common and additional fees you may encounter. Some colocation providers are including services in base prices so be sure to carefully read all the terms in your contract.

In many cases, server problems could be easily and quickly resolved simply through rebooting the server. In particular instances, there is a need to reboot especially when you are upgrading software and [applications](#). Because the server you use is located in a separate and remote location, there could be logical problems if the server could not be rebooted through a remote connection. Remote reboots would come into play. You just need to call a given support number so you could request for a server power cycling. The function could also be facilitated through a remote power port [management](#). The service could be included in your contract but it could be free only at several times. If you exceed the limit for such service, there would be added charges.

Remote hand is usually called remote technical support for software or hardware issues. You could request for such a service as a customer. This is necessary as you may require more than just rebooting of the computer system. The service usually includes troubleshooting software problems

and common hardware issues. Remote hands services are usually excluded from the fixed costs and are billed at costly hourly rates.

When you run a [server](#), there would be a particular domain linked with it. A server could host multiple domain names. Colocation providers usually have many DNS servers that could host your system DNS files. They could include specific numbers of domains that could be hosted by the DNS servers. Such additional domains cost additional fees on a monthly basis.

Colocating services usually have limited IP addresses provided to customers. In most cases, a server require one, although additional IP addresses could also be used to effectively separate services on the PC. Providers would provide certain numbers of IPs, as stated in the contract. Additional IP addresses you may require surely would automatically command additional monthly fees.

Server backups are of course commanding additional monthly costs, as well. You may need such service especially when you do not like the idea of possibly losing important data. Server backups require a server to have compatible software and hardware to be functional.

When a server is put within a colocation facility, it could be exposed or open to network connections from elsewhere across the [Internet](#). It could compromise overall security of the system. Most colocation providers offer placing the server behind a functional firewall. Thus, there would be restricted access to a server going to specific ports. Without a doubt, this calls for an extra monthly charge per port.

Is Colocation Right for Your Business

Colocation is one of today's cost-saving solutions when it comes to managing [online](#) businesses. It is ideal for small and medium-sized companies who would rather outsource their data centers instead of building and operating their own.

If you are thinking of getting your [business](#) online and you have heard a lot of rosy things about colocation, rest assured that you have several options to choose from. As it is, there are many variations in web hosting tailor-made for the different needs of customers.

Types of colocation

There are colocation services that are sought out by businesses that need complete control over their hardware. Sometimes, these companies require more bandwidth to go along with the high [traffic](#) volumes. Generally, this kind of solution is best for those companies who cannot afford to compromise on performance and reliability.

However, if your [company plans](#) are modest or maybe you are thinking of running a small business site, colocation hosting is not recommended. (You might get a better deal and the most value out of a shared hosting solution or perhaps a dedicated server.)

Web hosting

When things are set up and ready to go, you will realize that colocation is almost the same as traditional hosting solution. You will do the accessing of your site the same way, and you will perform many of the same functions done by other customers.

The main difference would only be the fact that you own the hardware, and that they are housed in a facility together with other similar clients. Sometimes, the hardware and software are not your company property, and you are in effect renting them and the facility's services.

Location

In colocation, one of the most important considerations to work on is the choice of location or facility [site](#) of your provider. (It is also one of the hardest to solve – colocation facilities are located almost always in large urban centers near large network hubs.)

Ideally, your colocation service provider should be nearest to your own place of [business](#). The main reason for this is that it should be easier for your technical people to travel and perform regular hardware maintenance.

To ensure better connection speeds and good performance, it is also a good idea to choose a facility that is near your [target market](#).

Costs

Another major aspect that involves your business is cost. The costs incurred in colocation services are generally determined by the amount of rack space the server requires and the server type.

There are other costs that may be included in your agreement. Costs for managed and unmanaged colocation services are way off each other.

Managed services costs much higher because of the piled-on services you enjoy. The only thing you do is run your [business](#), and leave the rest of the details to the colocation provider.

On the other hand, unmanaged services are lower and you enjoy the flexibility of operating and maintaining your [site](#) the way you want it.

Decision

Colocation may seem daunting at first sight, and it may seem complex at times. In the end, you will see a clearer picture of how the system works after some careful analysis.

You may need to discuss this with an IT professional, but in the end it is your decision (based on your needs) that matters. Is colocation right for your business?

Managed and unmanaged colocation

After you have decided to have a Web server under a colocation deal, you need to decide whether you would use managed or unmanaged colocation service. These are the primary options available to [businesses](#) from most colocation providers. The decision you would make would have an important impact on maintenance, server requirements, and overall pricing. How could you decide which of the two to choose?

Managed colocation, also known as dedicated server rental, makes use of a preconfigured dedicated server. The selected software and applications within the service could be used within limits. Additionally, the provider is also taking responsibility in providing [software](#) upgrades to provided applications within the system. It includes general maintenance like backups, reboots, and hardware issues.

Managed colocation is specifically useful to small businesses with limited IT resources or individuals who do not have the technical expertise and inclination. It is also recommended to firms with less capability to handle mundane troubleshooting as well as maintenance. It should be noted that there are practical and logical restrictions for the use of this service. The managed server allows only supported applications to be processed and run on the servers. In this case, you would have no choice but to give up a need for a particular software application if the colocation provider does not provide that application. It could have limited usefulness.

On the other hand, if you aim to have a greater control over your need for a server, unmanaged colocation is for you. This service is ideal if a technical requirement of operating or running a server is demanding applications not supported by the colocation provider. As mentioned, you may opt to take a bigger control over configuration and your own use of the [Web](#) server. This way, this type of colocation service is different from the managed colocation.

As a customer, you would be required by your colocation provider to provide your own hardware. You would also be asked to manage every software and hardware on your own. Thus, the unmanaged colocation service could facilitate greater flexibility. The drawback of this service is quite obvious: there would be more work and effort on your part. This is the reason why this type is more recommended for small businesses or individuals with adept and sufficient technical capability and competency.

Overall, whichever you choose, your [business](#) would be bound to specific service agreements with the colocation provider. Most of such providers would have and implement clauses that would disallow specific activities, operations, programs, software, or application from being hosted and run on the server. It is important that you read the terms and conditions of the agreement very thoroughly before getting into any colocation arrangement with anyone. The list of items usually banned by providers includes mass emails and pornography.

This is because both are requiring a greater amount of [online](#) network [traffic](#), which in turn could cause serious or severe problems eventually on

the part of the colocation provider. Your [business](#) may not need to process such things anyway.

The Benefits Of Colocation

In step with today's [developments](#) in the computing industry, colocation is one timely innovation. Most of the businesses now (save for the biggest ones) employ colocation to take care of their IT needs.

Because of the speed in the rise of internet [business](#), big corporations are now slowly outsourcing their data centers. Instead of building and operating one, companies are now into colocation.

Companies are now beginning to see the many benefits of colocation. The major reasons include the following list.

Redundancy

Many colocation providers offer multiple-level systems redundancy. In layman's terms, this ensures the client will have outage protection, temperature regulation, network reliability and security.

These redundancy measures are too expensive for client-companies to provide in an in-house business setup. Colocation providers ensure that their customers' network is up at all times.

Security

Today's colocation centers offer increased physical and network security

measures. Some facilities require escorts for customers, others employ PIN [codes](#), and still others use proximity [card](#) access systems for customers.

Server cages and cabinets have the standard state-of-the-art locks for security. Many data centers have round the clock monitoring staff assigned. Sometimes, colocation providers offer security audit and periodic security advising services.

For in-house setups, your sensitive data is always at risk. You may invest in tape backups, [video](#) surveillance, and armed security guards, but colocation is more effective and affordable.

Lower bandwidth costs

In an in-house setup for your server, you are paying more in anticipation for any spike in your web [traffic](#). Most of the time, you are using only a small portion of the bandwidth you paid for.

When you are leasing bandwidth from a colocation provider, you pay only for the small bandwidth you actually need. Any spike that may occur is always taken care of because many data centers have huge data pipes.

Secure power supply

A colocation provider will always have redundant power sources that cannot be duplicated in an in-house setup because of the prohibitive costs. These colocation companies provide full surge and lightning protection,

multiple battery backups, and generators for extended outages.

This full service package comes with professional expertise and equipments that most companies with standalone IT setups may not be able to meet.

Connection

Colocation provides a higher level of convenience for the client because they often use more than one ISP ([internet](#) service provider) or multiple optical fiber circuits. The client will not have to provide space for their servers.

Moreover, clients can upgrade [power](#), memory, and [software](#) as needed because of ownership of server equipment. The client's server will also stay up even during a company move.

Protection

Colocation facilities are designed to protect your data and keep your servers running even under severe conditions (fire, floods, humidity, air pollution, etc.) Depending on the location, your data may also be protected against earthquakes and hurricanes.

This extra protection is a lot cheaper (compared to an in-house setup) because it is shared by all the other clients of the colocation provider.

Overall considerations

For most SMBs (small and medium-sized [businesses](#)), colocation can provide tremendous cost and other types of benefits compared to setting up the same system in-house.

Colocation is one practical choice for a company that still lacks the financial resources and physical space to maintain [internet](#) hosting operations.

Tracking Colocation

A vital concept of colocation billing that you have to be aware of is bandwidth charging. In general terms bandwidth refers to the amount of data per second that a connection can possibly handle. But when it comes to provider talk this is treated as the amount of data transferred with each server activity for a given billing period.

Normally the basic package consists of a standard amount of [data](#) transfer. This can be measured in terms of the allowable number of gigabytes. This can range from two gigabytes up to about hundreds. Once the [customer](#) exceeds the agreed data transfer parameters then extra charges will come into the picture. These charges can be in pennies or [dollars](#) per gigabyte.

Two methods are utilized in mapping out the billing for the bandwidth charges. The more common of the two is the 95th percentile which is usually used by large scale servers. The other one is called straight data transfer rate which is more suitable to small servers that only demand low bandwidth.

When the 95th percentile is tapped on, the amount of data transferred is identified by looking at the network port that is attached to the server. The provider [checks](#) this port every three to five minutes and the reading is recorded and stored in a database. At the conclusion of each billing cycle, the database is analyzed to determine the entry that is tagged as the 95th percentile for a specific overall size. Once such entry is present the

bandwidth usage is computed by multiplying the billing cycle length with the 95th percentile rate.

Since most of the internet servers have a consistent traffic for majority of the billing cycle and with only several bursting traffic the 95th percentile method is the ideal one for most customers. Moreover, a large portion of network connections really become idle during times when they are indicated as idle. The 95th percentile only becomes disadvantageously expensive when a [site](#) works with a high sustained transfer rate for more than five percent of the time its [link](#) is running.

The straight data rate is aptly named since this method is very simple and straightforward. Billing is produced by summing up all the incoming and outgoing [traffic](#) for a certain billing cycle. Whatever the number that pops out via colocation server transfers the customer has to pay for it. Most of the time there is no complication but you have to be keen with the actual data traffic occurring to and from your server.

Before signing with a colocation provider make sure that no stone is left unturned. Think of how much data is needed to keep your site in good running condition. If you have no idea, then feel free to ask the provider for a more flexible agreement in terms of bandwidth charging. You can look for companies that offer lower rates per gigabytes or those that can offer a higher base bandwidth. Whether it is 95th percentile or straight [data](#) rate make sure that you have access to the documentation of data transfer to determine if it is executed accurately.

Two Faces Of Colocation

You have taken time to look at the different web hosting options. After some thinking you finally decide to go with colocation. You already know the pros and cons in this hosting type but there might be other facets that you want to explore. With this, let's take a look at the two faces that you might meet.

The first one is called managed colocation. It is otherwise known as dedicated server rentals. It is called as such because it offers a server that has been preconfigured by the provider. [Software](#) applications are made available in certain specifications. The thing to look out here is that you the customer is only given limited access.

The provider has the sole responsibility over the enhancement of the system. Upgrades on the given software [tools](#) and applications are handled by the company. They also deal with maintenance, backups, rebooting, and hardware issues.

If you are one of those persons that are not really technically sound then this sort of service can help your [business](#) move forward. You don't have to give time and effort into learning the different aspects of server maintenance and troubleshooting. Furthermore there is no need to come up with a team of qualified professionals.

As mentioned earlier there is limited access. You have to be aware that

there are restrictions to the service. One very good example is that only supported applications can be utilized during server sessions. Now if you're [site](#) is in need of a software tool that is not present in the system then you've got a huge problem at hand.

If you are the type of person that wants more control in everything that you do especially when it comes to [business](#) then the next face is the one that you can associate with. It is termed as unmanaged colocation. This is your one-way ticket to attaining a more flexible form of web hosting experience.

When you choose to [side](#) with this service you are obliged to come up with your very own roster of hardware and machines. You will have your hands full with server and software [management](#) and maintenance. If you think about it this one is better if you have what it takes to choose the best setup for the software applications to be used for your site.

Even though the term unmanaged is on the table you have to realize that there are still service agreements that you have to follow as a customer. Providers are very keen in putting up clauses that prohibit certain aspects to be part of the server they will host. The usual suspects are mass email and pornography because this pair can bring about problems in network flow.

You are about to take a significant journey in your life thus you want to be prepared for whatever that may come along the way. You may have decided that colocation is the best companion on your road trip to [business](#) success. Nevertheless take some time to determine which service can

bring you to the top.