What are the benefits of colocation?

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A few of the benefits of using colocation over hosting Internet servers and equipment at a businesses office location are listed below to help explain colocation service and why is has grown so popular. Â Â

Colocation Provides Reliable Uptime

There are so many ways that colocation provides redundant services to guarantee truly reliable uptime when you choose a quality colocation facility.Â Within a "Class A" colocation facility everything is redundant so that if anything goes down the colocation customers server and network equipment will not even notice it as there are redundant systems in place that automatically replace those that went down.Â This includes; the air conditioning systems, UPS (uninterruptible power systems), power generators, utility power, network routers, redundant Internet backbones with plenty of extra capacity, and redundant onsite network engineering staff.Â Not every colocation provider and colocation facility includes all of these important services, but those that meet the Class A certification requirements.Â Because a "Class A" colocation facility has all of the services setup as redundant it guarantees the highest possible reliable uptime for your collocated server and network equipment.

Better Network Speed and Reliability

Most colocation facilities run BGP and have redundant Internet networks and different Internet backbones coming into their facility.Â When a company sets up a network at an office they usually just get the Internet bandwidth capacity that they need such as a single T3, which is 45 Megabits, or an OC3, which is 155 Megabits without the redundancy.Â Premium Class A Colocation facilities go to a much greater extent to provide a fast and always reliable Internet network, for example Hurricane Electric's colocation facilities network connects to over 500 major national and International Internet backbone networks.Â Also the Hurricane Electric Network connections are all OC192's which are 10,000Mbps each and as of the time of this writing are the fastest network connection possible to have for any network.Â This kind of redundancy and size and availability of Internet networks within their colocation facilities makes for much more reliable Internet bandwidth than what is available or feasible at an office location.Â A few other colocation facilities have this kind of network redundancy and they are Switch and Data and Equinix, though there are several differences between these three providers colocation facilities.Â Â Â Â Â

Better Power Redundancy

At and office a company will have the primary utility supplied power and may also use a small UPS to backup the servers or computers on their network.Â Few offices have automatic emergency generators unless it is for a data center, hospital or other important office building.Â Even with the office buildings that do have an emergency backup generator it is usually the type of backup generator that has the ability to run for 2 or 4 hours and is rated for "backup".Â In the best "Class A" colocation facilities the generator is a "Prime Source" type of power generator and the UPS system is a whole facility UPS system.Â This type of system can take up a whole room with the electrical

breaker panels, automatic generator switch gear, and large UPS systems. Â If an office wanted to install these type of power systems they would need to upgrade the power grid to the facility and get permits from the land owner and the City for the pad mounted large UPS systems to be installed. Â In addition to this they would have to get permits from the fire department to store the additional fuel for the Prime Source Generator. Â All of this equipment can cost as much as $12,000,000 to procure, build the special rooms and safety structures and install. Â This is often not an option for a company to do at their office.

At a "Class A" colocation facility such as Hurricane Electric, Equinix or Switch and Data, the generated power is backed up with extensive power systems so that the power will stay up even in the even of a utility power outrage, and in the case of Hurricane Electric, the Prime Source power generators can run indefinitely to make sure that there is quality power in the face of an extended power outage.

Redundant and Improved Cooling / AC Environment Conditioning

Many office environments have AC systems that can handle a set amount of cooling for the environment and are set to run during business hours. Â When you introduce a large amount of servers or network gear, the power used is converted to heat that must be cooled. Â Office AC systems just aren't made to handle the additional cooling required for a large amount of server and network gear used for Internet applications. Â In addition to this, should the AC system at an office fail, or just need to be turned off for routine maintenance then the heat would rise. Â Hot computer equipment is prone to fail and has a much shorter life span.

This is why in the best Class A colocation facilities you will find that they have setup redundant AC systems. Should an AC system have to be taken offline for repairs or standard maintenance there is another system already working in place to keep the facility cool and at the best environment for computers and other network routers and gear. Â

Significantly Lower Setup and Monthly Cost For Services

High bandwidth deals at a True Class A colocation facility can cost as little as $100/month for space for a server and Internet bandwidth on a dedicated 100Mbps Internet port or as little as $1080 for the whole 100Mbps within a colocation facility. Â This includes all the special redundancies and services that a colocation facility includes. Â Yet, if and office were to try to set up the same 100Mbps Internet bandwidth with just a limited redundancy to cut costs it would still cost more than 30 times the cost per month ($30,000) for a lesser service. Â Below is a detailed item by item explanation of what this would cost.

Setting up a Class A colocation facility with all the above and below services can cost as much as $80,000,000. Â In addition to this the monthly operating costs for redundancy and reliability are quite high. Â If an office was to attempt to set up some very basic redundancy it could easily cost much more per month to operate than the same service would cost at a colocation facility. Â

Office Network monthly costs; Redundant OC3 Internet connections $10,000/month to $50,000/month depending on the provider, 1 person working at all hours onsite to be available to help with the server would be 5 people working 40hr shifts (just to have one available 24/7) X $4,000/month each = $20,000/month. Â This alone equals $30,000 to $70,000/month just for these two aspects of getting the 100Mbps Internet bandwidth to an office and having one staff person onsite 24/7/

In addition to this there are many other costs such as increased office power costs for servers and cooling, etc. Â Thus it is easy to cost justify using colocation services for an Internet application verses trying to do it at an office, but there are many other quality and service benefits that are even stronger reasons of why colocation is the only way to go for Internet services.

Network and Server Specialists

At the best Class A colocation facilities the facility has the best Network and Server Specialists who

do nothing other than help with colocation customers network gear and servers 24/7 and thus these are the very best trained personnel to be found. Â This is a tremendous benefit as experience can help you solve a problem that may take 8 hours in as little as 5 minutes when an experienced network or server specialist helps. Â This can make all the difference.

On-Site Remote Hands 24/7

Not all colocation facilities are staffed 24/7, let alone most will charge an hourly fee for simple tasks such as swapping out a hotÂ swappable hard drive or configuring a base ip address, or urgent help such as typing a few commands to help you recover a server, but premium colocation companies will include On-Site 24/7 Remote Hands service with their colocation plans at no additional charge. Â It comes in handy and is very helpful. Â This is the only way to go. Â It allows you to mage your servers as though they were under your desk, even if they are half way around the world they will seem close.

High Internet Bandwidth Availability

Another very important benefit of a colocation facility is the high availability of Internet bandwidth. Â If you need to upgrade from 10 Megabits to 100 Megabits to 1000 Megabits to 10,000 Megabits you can do it within days and sometimes as little as minutes. Â At an office to upgrade from 100Mbps to 1000Mbps Internet bandwidth can take 3 to 6 months, if it is even possible. Â This is a very strategic benefit of colocation facilities.

Colocation Opens Up New Possibilities and Business Opportunities

Colocation makes possible many Internet services that just would not be feasible or possible without all the improved Internet bandwidth options any other way.