

# Whitepaper

Why The Cloud Is Green



### The Cloud May Just Be That "Greener" **Alternative We Have All Been Searching For**

Cloud computing has not only flourished within the last few years, but it also introduced numerous benefits to businesses AND the environment, simultaneously. The cloud has proven that not only can it help reduce the amount of energy that an organization consumes, but it can also help to reduce carbon emissions.



### Reasons Why the Cloud is Green



## Pay-As-You-Go

Most cloud providers offer a pay-as-you-go option as a payment method for clients. With this method, users pay for cloud services similarly to how you pay your electricity or water bill – it's based on usage. Your monthly prices depend on your monthly usage. It's a simple model and allows businesses to remain in control of their spending. While this fact is often used to describe how businesses can save money, it also helps define why the cloud is a green option.

This payment model encourages more efficient business behavior, as businesses are more likely to consume only what they need and nothing more to keep costs low. Pay-as-you-go drives energy and resource efficiencies simultaneously because users consume the computing resources only when they need them. This keeps energy usage low, prices low, and the impact on the environment low.

"Moving to the cloud can save up to 87% of IT energy."



# Shared Resources

With virtualization as an option, cloud-based infrastructure allows a single server to run multiple networks at once. This is called multitenancy. This allows providers to place multiple clients on one server so resources can be shared. Again, this is similar to how you might experience your electricity or water usage at home. You don't own and manage the equipment that gives you these essential resources. Instead, you work with an outside company to share these resources with others and use them based on your needs. That's how the cloud infrastructure works. It's all about sharing resources.

Multitenancy has intrinsic green benefits. Less equipment is needed, allowing for a decrease in space used and waste created. Consequently, as less equipment is needed, less energy is used. Data centers will consume less electricity when they don't need to run as much physical equipment. This is a major improvement on traditional computing, which has every company running separate systems, exponentially increasing energy consumption.

### Virtualization

With traditional computing, businesses manage a few servers up to hundreds of servers, depending on the size of the organization. This is inefficient as it leads to wasted energy and wasted physical equipment. Energy use is not customized to the needs of the organization, and the hardware used needs to be constantly replaced or updated, which leaves behind a trail of physical excess.

The cloud is a major improvement on traditional computing because it has redesigned the way businesses operate. Rather than investing in too many resources, organizations can reduce the amount of energy used and the amount of hardware needed. With the cloud, information is virtualized, eliminating the need for wasteful, in-house equipment. Businesses can operate through this virtual location, drastically reducing energy usage and the need for excessive physical equipment. With our cloud, virtual workspaces are accessed over the Internet and physically housed in data centers that are more efficient and have multitenant capabilities.

# "Moving to an environment that will give back to the earth every single day of operation, well, that's just unbeatable."

# **Equipment Efficiency**

With traditional computing, it's a catch 22 – businesses need more equipment to run their business and are therefore unable to purchase the most efficient hardware. This lack of money leads to greater waste and energy consumption, as well as equipment that quickly becomes obsolete. As soon as organizations need to replace that equipment, the cycle begins all over again.

That's why equipment efficiency is key. As businesses need less equipment to run their operations, they end up saving money in both power costs and hardware costs. This saved money allows organizations and data centers to upgrade to energy-saving equipment as technology improves. This has not always been an option, as organizations have not had the money to focus on efficient solutions.

# **Digital Operations**

The business world today looks very different than it did ten years ago. Everything is moving online. Businesses are beginning to operate digitally rather than physically, leading to significantly decreased resource consumption. While some see the growth of technology as detrimental to the environment, these amazing changes are actually leading to a greener way of doing business. Think about the numerous businesses that solely operate online, and then think about the physical business locations and purchased equipment that have been avoided due to this. What about the commuting that can be avoided because telecommuting is now possible? Or the paper saved because we're storing documents electronically instead? Those are just a few ways that the move to the Internet is helping in efforts to be more environmentally efficient, but the list can go on. As technology advances, we will continue to discover new ways to go green while revolutionizing business.



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