FEATURE ARTICLE



Contact: Aparna Tutak, Marketing Manager

Phone: (727) 726-1700

E-mail: Aparna.Tutak@ktek.com

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Uncovering the REAL Truth: What Is Cloud Computing and How Does It Work

Cloud Computing. It has been amongst the most over-used "buzz" words in the Internet Technology world today. The phrase is used everywhere and thanks to traditional and social media platforms, has skyrocketed to infamy in that the terminology has created a demand for a product that relatively few people comprehensively understand. While many so-called experts have claimed to explain the in-depth technical value of cloud computing, very few technology providers of cloud computing services have taken the time to explain what exactly it is and how it works so that business owners and Chief Information Officers can decide for themselves whether or not implementing such a solution is the right decision for their company.

What is Cloud Computing Anyway?

The truth is that the cloud has no true definition as such today. It's an ever-changing concept which is why supporters feel that it's the next evolutionary step in the future of technology while detractors feel that it's the same concept that's existed since the first "supercomputers" emerged in the 1970s when the modern digital revolution allowed businesses the ability to rent space on servers. Whether the concept is new or recycled, the driving factor in determining whether the solution is a right fit for businesses across all industries is whether or not it provides a means to an end - does it solve and improve the organizational and technological infrastructure while automating your business processes?

When it comes to understanding the basics, the cloud is simply a euphemism for the Internet. It's not a mysterious and impossible to understand concept, like some technology companies would have you believe. In fact, if you've ever used a web-based email service provider like Gmail or Yahoo! Mail, then you've already been on "the cloud." The cloud works in a very simple way - resources, software and information are provided on demand in the amount specified anywhere and anytime there is access to the Internet. The past thirty years have afforded major changes in the way data is handled, leading to the cloud revolution. In the 1980s, enormous mainframes restricted data in client-server systems. The investment of such technology required a significant upfront investment in terms of hardware, space and skilled staff members capable of maintaining the complex systems. Not surprisingly, this meant that businesses of all types had to understand the true value of technology as it applied to their organization and budget for it, accordingly. Today, even individual entrepreneurs can utilize resources, software and virtual storage space without having to maintain a full-scale personal datacenter, or any large investment in technology.

In every business, the old adage still rings true - "time is money." Time wasted in today's economic climate essentially equates to literally setting \$1000 bills on fire. Rather than allowing bottom-lines to go down in metaphorical flames, many businesses are taking advantage of the fact that the cloud allows for real-time data, applications, and operating system back-up and recovery, should any unforeseen catastrophes occur. Moreover, these applications and data can be accessed on their production servers in minutes rather than waste days of IT resources, including a dedicated technology department staff's precious time.

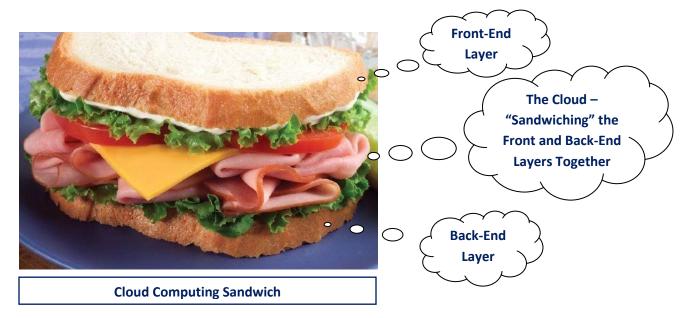
Since learning the real truth about cloud computing can be a daunting task, K.Tek Systems feels that you should understand that any IaaS (Infrastructure as a Service) provider should be delivering the raw material to your cloud computing implementation, including storage and network bandwidth. Whether you're a novice when it comes to all things IT or a seasoned veteran having managed entire server farms, you should also be sure to keep in mind that all reputable cloud providers will allow you to purchase capacity in small chunks so that you can scale your usage, depending on the needs of your organization. A solution provider that has the best interests of your organization in mind will always only bill you for the usage you consume without trapping you into a long-term commitment for unnecessary capacity.

I Understand What Cloud Computing is, but How Exactly Does It Work?

First, conjure up an image of the Internet and really consider what it looks like. One likely imagines computers and servers in various locations throughout the world, working together to transmit information in a network. The cloud works in a similar manner, as a virtual network of computers whereby applications run independently of individual computers and servers. When it comes to the cloud, the application is integral while the hardware is secondary. By no longer being reliant on dial-up modems for Internet access, people no longer have to have software run on desktops, fully allowing them to utilize the Web to host not only their websites, but also their data and applications. Greater flexibility through cloud computing allows multiple platforms to run simultaneously so it no longer matters if your website is hosted in Linux while your office runs Windows.

A Recipe for...a Cloud Computing Sandwich?

Now imagine that cloud computing is a sandwich. The middle portion that's filled with delicious deli meats, cheese, assorted veggies and condiments galore is really the "cloud," with the top slice of bread representing the front-end layer. When a person accesses a Web-based email account like the aforementioned Gmail, this is the layer that users see and interact with. The bottom slice of bread represents the back-end layer, the hardware and software architecture that drives the front-end. When working together, the front-end and back-end layers harness the network of computers to allow applications to exploit the collective cloud computing power, thus creating your "cloud sandwich." As an end user, there simply is no greater flexibility than what a cloud solution provides. Demand determines whether resources need to be increased or decreased by reallocating specific hardware and bandwidth accordingly.



To some this may be an oversimplified description of what cloud computing is and how it works, yet if your organization takes one thing away from this article, hopefully it's that the "cloud" isn't as mysterious as previously thought. It is a robust tool that like everything in the IT field, has its pros and cons. If implemented by a provider whose expertise can truly support this type of infrastructure, and depending on your company's specific needs, cloud computing may just be a viable, long-term, and cost effective solution (and *recipe* for success) for your organization.

Reference: "Is the Cloud Right for You?" by BusinessContinuityToday.com & Vision Solutions

About K.Tek Systems Inc.

Founded in 1993, Clearwater, Florida based K.Tek Systems Inc., is a leading global provider of full-service, Web based technology solutions including custom web design and development, hosting and Internet application development. Additionally, K.Tek Systems offers strategic consulting, corporate Intranet and Extranet development, creative marketing services and database application integration, custom software/Mobile Smartphone application development, cloud computing and e-commerce solutions, as well as content management solutions. Serving hundreds of customers internationally, K.Tek Systems remains steadfast in its commitment to create meaningful relationships by understanding clients' unique business objectives, identifying their critical success factors and yielding total success by increasing growth, productivity & profitability. K.Tek Systems understands the dynamics of business and technology and prides itself on 98% client retention due to consistently delivering a high ROI by helping clients strategically position themselves competitively in today's market. Together, K.Tek Systems' proven leadership and expertise leverages the fusion of business and technology to provide thriving Internet and Web based technology solutions for any organization. For more information, visit https://www.ktek.com.