



## The Latest News from More Power Computers

### Cloud Computing's Foggy Future

Long before PC's and Mac's there were mainframe computers. Mainframe computers were very costly to own and maintain. Businesses, students, and workers accessed a mainframe computer through a "dumb terminal". Dumb terminals were basically a keyboard, display, modem, and enough circuitry to run the terminal and connect to another computer, but they had no real computing power on their own. They were enough of a system that it could connect to the mainframe computer so people could time-share the use of a computer. This brought down the cost per user because you could access the computer when you needed it but someone else was paying for the cost of the computer when you were not using it.

When computers became more powerful and more affordable people were able to buy them and get what they wanted. But the idea of time-sharing a computer has returned in the concept of cloud computing. While the evolution of this concept is still in the works, it's possible that data storage, software applications, and even computing processing power for large applications could be shared or purchased on a pay-as-you-go basis. Since applications, data, and processing power could exist on a "cloud" of

different servers, the term "cloud computing" was born. In cloud computing, the only thing you might need on your computer would be the interface software. That being the case, a computer in the future would need very little computing power at all, much like the dumb terminals that connected to mainframe computers years ago. You could expand the computing power you want based on your needs. It may be possible to rent the software applications, as you need them, to lower costs even more. If you have Web-based e-mail, then you may have already experienced a type of cloud computing. With web-based e-mail you have browser software on your computer, but the rest of the data such as all of your e-mails and pictures you've sent and received are located on the server your e-mail provider owns. So what happens if the company that has all your data loses your data, pictures, etc? An article in VSR Magazine, February 2009, reported such a story. On August 8, 2008 a company called The Linkup, serving 20,000 users, lost access to an undisclosed amount of data and shut down. Complicating the problem was how customer data was stored. To help reduce costs, The Linkup had outsourced the storage of customer data to a third party. When the



roadmap to where customer's data was stored on multiple servers at multiple locations was lost, it made finding the data highly unlikely, or at least exceedingly difficult, time-consuming, and expensive. It seems clear that not everything should be trusted to the cloud. Backing up your data locally should still be done. Cloud computing is in its infancy. It's unclear what innovations will win out or what regulations will be enforced, but moving forward companies that offer cloud computing services must work hard to earn the customer's trust. There are still a great many points that need to be worked out, such as security, liability, privacy issues, data backup, legal issues about who owns the data, and regulation of services. Without addressing those issues, cloud computing has the potential of being the Enron of the IT world. But if decisions are made well, cloud computing could be the next evolutionary development in how we use computers.

More Power Computers, Inc.

Serving The Lower Columbia  
Region Since 1994.

### Cloud Computing Solutions

- > The Next Evolution Of Computing Or The Enron of The IT World?
- > Are You Ready To Time-Share Your Computer?

- > Be Safe Out There! When It Comes To Cloud Computing Back Up Your Data!



Your TOTAL IT solution since 1994!

## Trade-In The Old For More Power

If there's a new generation of computer every three years, than some of the More Power Computers out there still working are great-great-grandfathers of the current generation. While we love to hear how pleased customers are with their system even after all these years, we have to admit there have been some advances made in technology since we started in business. For those that want to trade-in their old More Power Computers system for a new one, MPC is offering \$75 trade-in on the purchase of a new desk-

# More Power Computers Celebrates 15 Year Anniversary!

MPC began as a small retail store offering new and used computer parts and simple PC repair services, but has grown to include a wide range of business and home services and product offerings, some of which include: predictive and preventative maintenance, remote network management, laser printer repair, security services, infrastructure evaluation, internet services and complex network server and workstation solutions. Our centralized location in Rainier Oregon between Cowlitz, Wahkiakum, Clark, Clatsop and Columbia Counties has allowed us to react to, and implement solutions with a minimum of lead-time.

Since its founding in 1994 MPC has built an exceptional reputation in the Southwest Washington/ Northwest Oregon region based upon a philosophy of providing the client with the best possible service at a reasonable price. Our commit-

ment to this philosophy has allowed us to enjoy strong growth over the last fifteen years even in tough economic times and with the ever-changing demands of the marketplace. Our highly trained, certified and experienced staff has successfully completed many large and varied projects involving the very latest in technology. Our experience encompasses the use of all major and emerging operating systems and applications, as well as many proprietary applications and needs. Our broad experience in other engineering and technical fields, as well as our project management expertise, has established us as being uniquely qualified for projects of any scope, complexity or size.

MPC staff are motivated by service to the community as evidenced by participation in community organizations, such as: Columbia and Cowlitz Counties Search and Rescue, Boy Scouts and United Way. Five mem-

bers of the MPC team have also served in the military.

MPC participates as a business member in various organizations, including: Better Business Bureau, National Computer Association, and local Chambers of Commerce.

MPC is an authorized reseller and service center for Intel®, Microsoft®, Hewlett-Packard®, IBM®, 3Com®, Cisco® and many other fine technology manufacturers. Our service department has achieved the coveted Gold A+ rating from the Computing Technology Industry Association (CompTIA), and MPC has been awarded certification as a Microsoft Small Business Specialist. Our sales and service staff regularly attend training seminars and product briefings to stay abreast of the latest advances in technology and product offerings.

## Memory; What Is It? Is It All The Same?

Random Access Memory (RAM) is called "random access" because the computer can access any memory cell directly by the address. Think of a grid with square boxes. The address is the row and column that intersect at that box or cell where information is stored. The most common type of RAM is Dynamic Random Access Memory (DRAM). A transistor and a capacitor are used to make a memory cell storing a charge. The capacitor holds the charge making it a 1 or a 0. The transistor works as a switch to read or change it. When a capacitor has a charge of electrons the computer reads that as a 1. When there's no electrons present then it reads it as a 0. The problem is that capacitors are like leaky buckets that are constantly emptying out and turning 1's to 0's and thus losing your data. To

keep the memory means having to constantly recharge with electrons the capacitors having 1's and not charge those with 0's. In a few milliseconds a capacitor loses its charge. To make the memory work, either the memory controller or processor is used to read the memory and then write it back again before the capacitors holding a charge can discharge. This renewal of data must happen thousands of times each second. The refresh rate is measured in nanoseconds (millionths of a second). As constantly refreshing the data uses processing time, DRAM loses some speed due to this process. Static RAM is different than DRAM. It does not use a capacitor and does not need to refresh data. Not having to refresh the data makes Static RAM faster than DRAM. Instead of capacitors, a Static RAM

memory cell is made up of four or six transistors and some wiring. Having a more complex structure with more parts per memory cell means Static Ram costs more and you cannot fit as many memory cells onto the same chip space. Speed-sensitive applications, such as a CPU cache, use Static RAM. Cost and physical size make DRAM the best choice for the replaceable modules (sticks) of RAM that most of us are familiar with in our computers. The evolution of DRAM has brought about variations in physical structure and how it processes data. Also, some manufacturers have designed motherboards to accept only certain configurations and/or proprietary forms of RAM. Due to such differences, it is crucial to get the right RAM for your application.



## More Power In Parades In 2009

More Power Computers will be in the following parades. Hope to see you there:

- Longview's "Go 4th" Parade July 4th, 10:00am.
- Clatskanie's "Heritage Days" July 4th, 11:00am.
- Rainier "Days in the Park" July 11th, 10:00am.

## Catch Phrase Contest

Celebrating 15 years of serving the local area, More Power Computers is looking for a phrase that sums up what we do. "More Power Computers..Power is our middle name" has already been submitted. If you can submit a better phrase and we pick yours, you may win a 16 GB flashdrive. In case of a duplicate entry, the first received entry as determined by More Power Computers will win.