

Databyte Brief

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CYPRESS SYSTEMS, INC.

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AT&T—Now Restricting Internet Growth?

Written by Mason Vonnahme

In the ever changing world of high speed Internet, recent service changes with some Internet service providers (ISP's) have some users wondering if the days of unlimited bandwidth are over. AT&T has begun capping its Internet delivery service for DSL customers, however, this isn't the first time AT&T has restricted bandwidth. Eleven months ago it began placing a similar cap on its mobile users.



AT&T's inclusive service package called U-Verse, which bundles broadband, television and telephone is now limiting customers to 250 gigabytes of Internet usage a month. Standard DSL users are now capped at 150 gigabytes. The dichotomy between these two caps lead to the reasoning for the new caps: competition from other media providers. With online media providers such as Netflix providing low cost access to videos, AT&T needs to prevent competition from eating away from Uverse sales. Both packages have the option to add 50 gigabytes for an additional \$10 per month, even though 50GB is an additional expense of less than \$1.50 at 2009 rates, which decrease significantly year over year.

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Vostro, Optiplex or Precision? How to Choose the Right Machine

Written by Matthew Cochrane

Cypress Systems Inc. has been configuring and selling computers for nearly 15 years. For the last several years we have been a Dell partner. We employ their ability to provide low cost, high quality hardware for whatever requirements our clients may have. Dell has three basic categories of systems available a little bit of information can ensure you are getting best system available based on your needs and cost constraints.

The Vostro series is Dell's solution targeted for small businesses. The Vostro is well suited for basic users, who only work on data processing, email, and web interaction. This system line employs basic, high-value components into a lightweight chassis that is designed to provide the best value and lowest entry price into the market. These machines are not well suited for heavy photo, video or large database tasks.

The Optiplex series is Dell mid-range solution which offers upgraded components including the latest Intel processors and chipsets, enabling them to fill a larger variety of job roles including database work, photo and video manipulation, and other advanced tasks.

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3D at Intel

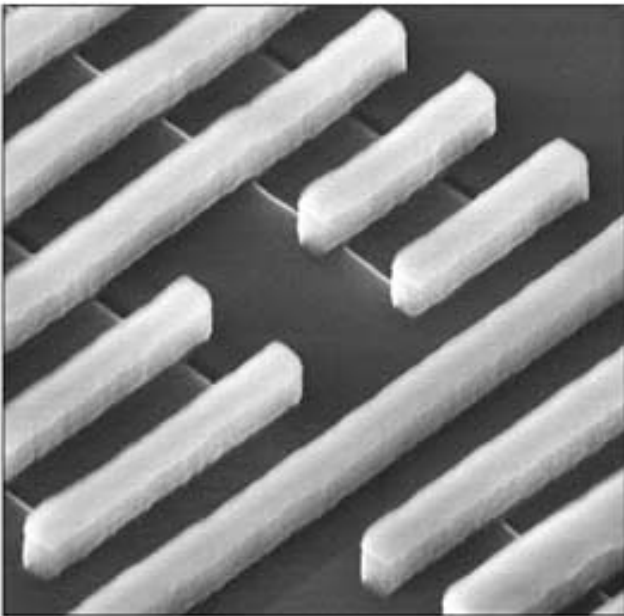
Written by Ken Roesler

Intel has made another breakthrough in CPU and manufacturing technology. After years of research and development, Intel announced that they are now able to create 3D transistors. Current transistors in a CPU like a Pentium processor have a flat layout, similar to a single story house. 3D Tri-Gate transistors have a 3D “fin” that rises up from the surface, like a skyscraper. Because of the 3D nature of the transistors, they can be packed together closer than current transistor technology can. This will mean that CPUs will be created at even smaller scales than they are now, run at faster speeds and still be able to run cooler than current CPUs.

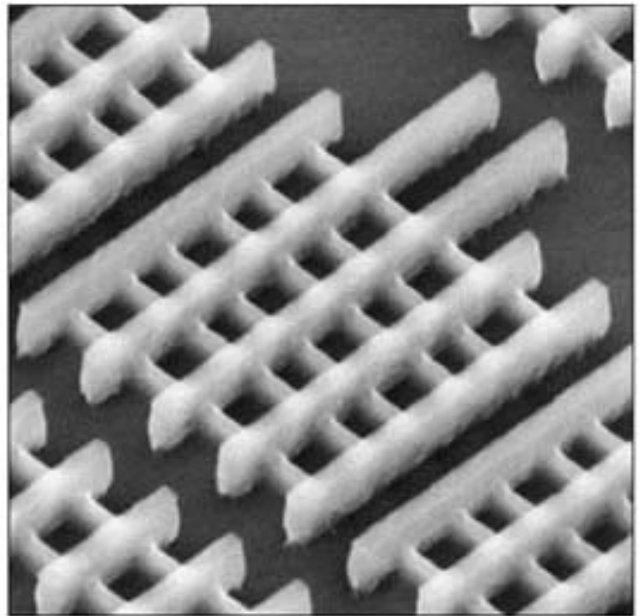
Intel’s Tri-Gate has a “gate” on each side and on top of the “fin” that can control whether power will flow through the fin; like a traffic light. If electricity is applied to the “gate”, then the traffic light is “red”, not allowing cars (electricity) through the street (circuit) below it. If no electricity is applied to the “gate”, then the light is “green” allowing cars (electricity) through the street (circuit) below. Thus, completing the circuit or not allowing power through the fin, breaking the circuit.

The first products will be directed at servers but will eventually filter down to workstation level computers and may also be very competitive in the phone and tablet market.

32 nm Planar Transistors



22 nm Tri-Gate Transistors



iCloud: The Death of MobileMe

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For the average user, the decision is easy whether or not you wish to use iCloud vs another provider such as DropBox, Amazon’s cloud storage product, or Google’s constantly evolving cloud services. If you intend to use only Apple brand devices, you will receive much better service from iCloud, however once you start to integrate other brands, such as Windows, Android, and other platforms, the ease of use will drop off considerably to the point where using competing services may be more consistent across all platforms.

Vostro, Optiplex or Precision? How to Choose the Right Machine

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Due to their additional flexibility, Dell offers a variety of chassis options ranging from standard tower systems to ultra-small form factor systems that tuck into cabinets, or even attach to the back of monitors for spaces with little space. You'll also find premium power supplies, high end motherboards, and other components that allow Optiplex computers to last longer, while offering a quieter computing experience. Due to their standard 3 year warranties, these systems are likely to provide a higher return on investment for offices that tend to use their computers for over 3 years.

The Precision line is Dell's "Big Iron", offering much of the same components that are found in their PowerEdge servers and packaging it for desktop usage environments. Because these systems are designed for professional level design and content creation, Dell includes specialized hardware such as fast storage systems and professional graphics cards that accelerate applications such as AutoCAD and Photoshop. Dell tests these systems extensively, certifying them with critical software such as adobe and Autodesk products; you don't have to worry about support claiming you have a hardware issue. When you are using a Precision workstation, they are pretested and guaranteed to work with their tested software.

Our partnership with Dell allows us to offer a wide variety of systems tailor made to suit whatever requirements you have for your computers. Please contact us if you'd like a quote for any of the systems described here for your office needs.



Vostro - Small Business



OptiPlex Desktops



Dell Precision Workstations

AT&T—Now Restricting Internet Growth?

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Given the changes in the services structure the caps will accommodate most users current needs. Standard DSL customer would need to watch nearly 65 hours of high definition videos on Netflix to reach the cap. The limits start affecting your usage when you combine moderate Netflix usage, along with online backup systems, online gaming, or cloud based computing. To help with the transition to the new service structure AT&T will send out alerts to each customer when they have reached 65%, 90%, and 100% of their data cap each month. AT&T is also allowing customers an undefined grace period before it charges them for the additional 50 gigabytes. Online usage counters also make it easy for customers to check their data usage real-time.

With these new caps being put into place some online companies have become frustrated with the state of American broadband and have decided to take matters into their own hands. Google, is currently deploying a 1 gigabit per second high speed network at a test site in Kansas City. These caps may also see the growth of smaller companies providing broadband with fewer or no restrictions. It's widely expected that other national ISP's will follow AT&T's lead in the near future. If you have any questions regarding your high speed Internet or possible capping of your broadband, please contact your Cypress Systems, Inc. engineer.



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iCloud: The Death of MobileMe

Written by *Matthew Cochrane*

For a few years, MobileMe has offered an easy way to synchronize your data, contacts, calendaring and email between your iDevice (iPhone, iPad, iTouch) and computer. While offering tight integration for \$99 a year, MobileMe has faced tough competition from the likes of Google and Drop-Box, who offer similar ease of use, with enhanced compatibility and lower costs (starting at free).

So what does iCloud mean in today's environment? For one, the integration is much more tightly associated with iOS and OSX, so usage is seamless with Apple devices. Offering an initial free 5GB of online storage for Email, Contacts, Calendaring, and other data, this enables Apple to incentivize using its own services instead of its competitors. For example you can upload your own music collection which counts towards your 5GB limit, or you can purchase your music through iTunes, which does not count against your data limit. With an average CD taking up 100+MB of data, you can easily fill up your 5GB of storage with just 50 albums. It's expected that other purchases from Apple owned storefronts such as the App Store will store applications for you on their servers.



iCloud

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