

In this issue...

The Business of Recycling
Windows7 in Q3, Palm Pre
Very Small Laptop Review
12 Terabytes
Price Watch, Iteon News

The Business of Recycling

Picture an old Toyota pickup truck with tall sides made of plywood. Filled with cardboard, it's on the way to a recycling center. Upon arrival, the load will be weighed, a forklift operator will help dump the cardboard, and the driver will get a check or cash. Then a front-end loader will push the whole pile of cardboard into a pit, out of which a



conveyor belt rises to feed a continuously-operating baler producing a 1-ton bale every minute and tying the wires automatically. Straight-forward, like making hay.

But how are loads of mixed recyclables handled? How do they separate everything out? If not by hand, who rips open the boxes and bags?

After a mixed recycling truck arrives at a recycling center, a processor dumps the mixed load on the floor, and pushes it onto conveyors, just like the load of clean cardboard. The first process is to shred and crush everything. Once it is in smaller pieces, broken glass is sifted out of the stream over vibrating screens. Next, giant spiky rotating stars grab cardboard and spin it off to the sides, while leaving behind everything else on the conveyor. Then air jets blow the light materials (plastics) up, where they're caught and conveyed to a separate sorting area. The next process is electromagnetic currents used to sort aluminum, copper, and other metals, by charging the metal and then repelling it. Finally, what is left is clean mixed paper. These systems cost \$2-10 million, and process thousands of tons of material per day. When you look down into one, your first thoughts will likely center around not falling in.

Once the component materials are baled and weighed, they are ready for sale. Each of the consumers of these raw materials has special processes to clean and refine them into new products. Paper mills, metals smelters, plastics recyclers, and dozens of other more esoteric users depend on recyclers for their raw material supplies and add water, chemicals, heat, or a combination appropriate for each specific process. Any buyer of these recyclables will use them to produce a new product, just as they would otherwise use virgin materials such as wood chips, ore,



or oil. This is where recycling at long last produces revenue for the operator.

Recycling commodities markets are notoriously volatile, but there is a true global demand for the materials. Recycling is an extremely risky enterprise due to price fluctuations. Large market shifts affected by supply, demand, and transportation costs (oil) occur frequently. So why would anyone go into such a business? The paper mills, aluminum processors, and other materials consumers minimize costs by saving water, energy, and labor when they consume recycled materials rather than virgin ones. The demand for recycled raw materials is strong and will continue to grow as virgin materials get more and more scarce...

In the United States, enough aluminum is recycled every day to build a Boeing 747. One ton of plastic drink bottles saves the energy equivalent of 11 barrels of oil. And yes, every ton of paper recycled really does save 17 trees.

Ben Sparks wrote this article, and is the Managing Partner at Green Planet Consulting Group (www.greenplanetcg.com). Ben merges business with recycling, and works with many large buildings, campuses, and management companies across the US.

Palm Pre

Palm has a new device coming out on the Sprint network, likely sometime in April (based on Sprint's current inventory of smartphones). The Palm Pre is a brand new device that leans a little on old Palm philosophy (as few clicks as possible, touchscreen, Palm-centric tools), but the device and operating system are both brand new.



We've played with an early device. The browser is very cool, and seems to be a step up from browsers on small devices to date--Palm has written it from scratch. The OS is general seems customized just for this device, which is both good (it isn't something poorly adapted) and bad (it will be new, and will likely have some bugs).

The hardware itself has an improved touchscreen, but the keyboard requires opening the device. This isn't as bad as the HTC devices that make you turn the device on its side to type, but it is not the same as having the keyboard on the face itself. We don't know if this will be good enough for us or for you. The people who tried the device here liked the keys better than the Centro, and said that typing was more like a typing on a 650/700 or BB, and they keyboard is very useful. Each person thinking of buying one should try it out themselves.

As far as ease of use and email (now ActiveSync), we expect that it will be slightly better than the Centro, and that the learning curve will be slight.

Pricing is rumored to be in the \$300-\$400 range, but it hasn't been set yet.

Windows7 in Q3

Windows7 (the replacement for Vista) is still slated for early Q3. We have been testing the betas internally, and they are extremely promising, are much more stable than Vista, and have more like XP than like Vista in terms of speed. There is still a lot left to be completed, but we have high expectations. We are hoping for a July launch at this point, but it may be later. Also, while we'll be recommending that some clients move to it quickly (those who need the new features or can't wait for new hardware), we'll be advising most of our clients to wait at least a couple of months make sure that no problems surface as it goes into large scale use. Also, hardware prices will likely fall after about Windows7 has been on the market for a bit. There is also no problem with staying on XP as long as the hardware is good.

As always, feel free to call anyone at Iteon to ask about upgrade plans for this year.

12 Terabytes

That is more than what Hotmail used for its first 16 million mail accounts. A small company has an attached storage device out now that has 12 TB for well under a little more than \$2,600. It is new enough that we can't guarantee the quality, but we have three clients that now have them in place, and they are performing as we'd expect them to. Time will tell, but regardless, this is a significant drop in price for storage, and other makers will likely soon follow with their own similar products.



Very Small Laptop Review

About 3 months ago, a new breed of laptop briefly made an appearance. These laptops were disruptive for two reasons: solid state hard drives and price. They were listing at about \$470. The only bad part is that the solid state hard drives had problems--not in the computers but in the supply. The laptops have all but disappeared from the market.

The laptops are very small--only about two pounds. But they are not lightweight in terms of power. They have a very usable keyboard, and are based on a new type of processor from Intel called "Atom." They are as fast most people would need for most stuff. While they aren't desktop replacements, one could easily be hooked up to a keyboard-mouse-monitor setup. Also, one key element--because of the solid state hard drives, disk access is very fast

and the battery is still lasting more than 5 1/2 hours, 3 months later (most regular laptops are down to 2 1/4 hours or less after 3 months).

Look to Dell, HP, Samsung, Asus, MTI, and Acer to all have these lower-cost, lightweight models out again in a few months, once the supply chain improves. Asus lead last time, and they may do so again. Lenovo will seem to be leaning toward not diluting their



current lightweight model that is a little faster, but retails for more than \$1600 (well over \$2200 loaded).

Iteon has a slightly beefed up one that we could sell for \$650 (it also has XP Pro, and has been setup and cookbooked).

Price Watch

Now is a good time to be buying laptops, desktops, and servers, but this will likely only last another 6-10 weeks, before prices start to climb in anticipation of the Windows 7 release. Hardware prices will likely stay high for 2-3 months after the release. Dell is still a good value for a lot of equipment, but don't be afraid to look at Lenovo for laptops--some of their prices are quite reasonable. Also, components are cheap right now. Upgrades may make more sense than new servers in many circumstances. Large (22" and 26" monitors are come down significantly in price recently.

Watch for the little laptops in late May or early June.

Prices for cell phones seem to be at equilibrium. Look for prices to go up in the next 2-4 months, as new models are introduced, and don't expect price drops in the mobile arena until November. This is earthquake weather for cell providers. If they want to steal business, they may start to drop prices on plans.

Consumer electronics prices are very low right now. Strangely enough, Costco has quite a few especially good deals, but do your research. Price is obviously important, but look at reviews and be very careful to find the *exact* model. Many manufacturers are making extremely similar models, but using cheaper parts in models with just a 1 character difference. You can always ask any of us for advice--we're happy to give it.

While the economy as a whole is still struggling, the prices for tech have started to stabilize, and are starting to very slowly climb as new models are again being introduced. There will be deals to be had, but be very careful, the market is sophisticated. The best advice is to shop around and know the "real price."

Iteon News

As always, thanks for all of your recent references. We really appreciate that every one of our clients is willing to be a reference--that one fact has been central to our growth.

We also really appreciate your business as we're watching others in our field dropping off. We have great clients.

Business at Iteon is strong, and it looks like our clients are doing well. We are continuing to provide great service to more and more solid clients.

Again, thank you all for your business and support.