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FreeAgent|Go, the ultimate portable storage solution from Seagate

Exclusive: Seagate on the Future of HDDs and SSDs

From Windows 7 to digital content

The storage market is going through major changes these days, with SSDs gaining more and more ground and registering a good market penetration, while HDDs struggle to maintain their position. Undoubtedly, the battle between the two technologies will be a tough and long one, and perhaps they will come to a consensus at a certain moment and will coexist, as we've seen in other IT market areas.

We have had the chance to talk to Siobhan M. Lyons, Seagate Corporate Communications, Consumer Solutions Division, who has been more than kind to answer some of our questions regarding the plans the company has. Also, he has given us an "inside view" on the future of storage industry, confirming some of our thoughts and expectations. Here is the e-mail interview we have had with Mr. Siobhan M. Lyons. Mr. Forrest Monroy, Seagate company spokesperson, should also be credited for the answers we received.

HDD technology has been reportedly advancing towards higher densities, higher storage capacities, faster transfer rates, as well as higher spinning speeds for the platters. How does Seagate see the future of HDDs from this perspective?

Seagate: Seagate sees a bright future for HDDs, and storage in general, as digital content continues to proliferate. We've demonstrated advances in technology in HDDs and other complementary technologies, that can provide a path to supply the growing storage density and performance needs of the market past 2020.

Seagate is one of the industry biggest players in the HDD market. How does this go along with the company's switch towards the SSD technology? What is Seagate's vision on the future of storage solutions?

Seagate: Our company is a storage solutions provider and as such is storage agnostic with regard to the type of storage being used. There are some applications that will be best served by HDDs for the long run and some areas where SSDs will prove to be ideal in the future. The key point to note is that SSD technology is not yet the ideal solution for any volume market requirements right now due to a number of reasons, including, but not limited to, cost, endurance, and lack of industry standards. Seagate has dedicated teams working on SSDs, but the key to this, or any other technology, is to enter the market at the right time. It's also critical to be a trusted supplier for not only product quality and performance, but for execution and delivery across the worldwide supply chain. Seagate's expertise in storage delivery and being a trusted supplier is second-to-none. The future will show that there will be co-existence between SSDs and HDDs, and our OEM customers are looking to us to be that trusted supplier that can provide the necessary storage solutions across the board.

When do you expect to deliver Seagate SSDs for both consumer and professional market? Could you detail some of the specifications of the said SSDs?

Seagate: Seagate will be entering the SSD market in 2009 within the enterprise as this is where it makes the most sense for our customer's needs. Our first offerings will be targeted toward being used with the most transaction-intense servers. We will continue to explore consumer and other markets.

Which OS do you think embraces best SSD technology? What can you tell us about your collaboration with Microsoft on making Windows and SSDs play nice together, in the context of today's Vista and the upcoming Windows 7?

Seagate: Microsoft is making a focussed effort to embrace SSD technology as documented most recently at WinHEC 2008. Microsoft introduced several new technology advancements intended to enhance the use of SSD in conjunction with Windows 7.

HDDs and SSDs currently plug into the same storage eco system socket and look the same to the OS - although they should be treated differently with regards to some aspects. Windows 7 will set Defrag off as a default when detecting non-rotating media, improving device endurance by reducing writes. Windows 7 supports the Microsoft implementation of the 'Trim' feature which enables three optimization opportunities for the drive that are: enhancing device wear leveling by eliminating merge operation for all deleted data blocks, making early garbage collection possible for fast write, keeping device's unused storage area as much as possible; there is more room for device wear leveling.

Microsoft also had a panel session at WinHEC 2008 with industry representatives from Intel, Samsung, Sandisk and Seagate with the title "How Windows and SSDs Can Provide the Best User Experience" which indicates that the enabling work for SSDs is not done yet and it seems reasonable to expect further enhancements in the future.

Seagate is working with Microsoft in standards bodies such as JEDEC JC64.8 to build the foundation to a successful growth of the SSD market. Widely adopted industry standards will allow the operating system to best embrace the SSD technology in the future. While standards build the foundation, there is intentionally clearly enough head room for each vendor to differentiate and innovate which Seagate plans to do as well.

What can you share with us on Seagate's upcoming HDD product lineup? What should consumers be looking for the 2008 holiday season?

Seagate: Consumers this season can look forward to seeing our brand new line of FreeAgent product lining the shelves. This new generation of the Seagate® FreeAgent™ family includes attractive desktop and mobile options, for both Mac® and Windows® operated PCs that make it a breeze to back up, share and protect valuable digital content like photos, videos and music. With capacities ranging from 250GB up to 1.5TB, the FreeAgent family provides storage solutions for the everyday consumer, the professional and the photo or music enthusiast.

The FreeAgent line also includes the industry's slimmest and only dockable, portable drive, the FreeAgent Go. Just in time for the holidays, we will unveil a wide range of new, stylish colors for the FreeAgent Go including pink, red, orange, yellow, Mars green, earth green, royal blue, sky blue, gold, silver or black. With up to 500GB, the FreeAgent Go has enough room to carry entire libraries of movies, music and pictures, making it a great present for all the important people on your holiday shopping list.

Those who either purchase or receive a drive this season will have fun customizing their gift with new content thanks to Seagate's limited time "Load Me Up" campaign. Starting November 28, owners who register their products will get 50 free songs from [eMusic](#), the second largest digital music service; two free movie rentals through [CinemaNow](#), an innovator in digital entertainment technology; and 50% off of a one-year subscription at [SmugMug](#), the leading photo-sharing destination on the web. The promotion will run through the end of January 2009, allowing people time following the holiday rush to carefully consider and select their favorite content to personalize their FreeAgent Go.

HDDs, as well as SSDs, have been, for a good time now, featured in devices related to home entertainment. How do you expect this market segment to develop in the near future?

Seagate: Our world is becoming increasingly more digital in all aspects. For the first time in 2006, consumption of storage in the home out paced that of enterprise. This has also spurred an increased in the proliferation of digital content capture devices, such as HD camcorders and high-resolution digital cameras. As consumers continue to produce and capture increasing volumes of digital content, they will be looking for ways to expand the capacity of these home entertainment devices with DAS and NAS solutions. Seagate is delivering on these demands with convenient and easy to use products for back up, storage, sharing and security of important files.

We currently offer the Maxtor Central Axis to address this need. Down the line, you'll see us introduce products that allow our FreeAgent products to be docked into a TV allowing it to stream content for playing in your living room. It will successfully extend the content power of the computer and Internet to the comfort of your couch. We also see the need for and are evaluating product specs for a home storage server that accepts content from various content creation devices - and, presumably, over the net - and then streams it to content playing devices. As the technology becomes easier to use and people become more familiar with the ways in which they can share media on the network, we see that this will be an opportunity for growth in the home.