



## Technology Expert Infogain Saves IT Costs by Upgrading to SSD-based Laptops for their Global Workforce

*"With the SSDs that I've tried so far, I haven't heard a single complaint from any of my users. No system has come back for repairs. These are power-efficient [solid state] drives. They increase the battery life. There is no mechanical breakage. [SSDs] will definitely save us not only money, but also time."*

**Sudershen Selh,**  
Systems Administrator,  
Infogain

### Challenges

- Infogain's large mobile workforce is dependent upon vast laptop usage, resulting in continuous, time-consuming and costly IT support and maintenance.
- Providing advanced technology services to customers requires up-to-date systems and applications; this, in turn, demands ongoing capital investment for keeping up with technology development and maintaining the best possible IT infrastructure.

### Solution

- Upgrading hard-disk drives (HDDs) placed in Infogain's existing laptops to solid-state drives (SSDs) for their global workforce.

### Results

- Lower IT costs, including reduced mobile workforce support, fewer failure repairs and less maintenance required for laptops with SSDs.
- Longer laptop lifespan, deferring replacement costs by up to two years, postponing the need to buy new laptops.
- Increased PC performance, resulting in improved IT and workforce productivity, as well as enhanced user satisfaction.
- The ability to provide customers the best possible services, efficiently and economically.





Sudershen Selh, Systems Administrator, Infogain

### Situation Analysis

Global technology solution provider Infogain starts by evaluating a customer's existing IT infrastructure, then provides the advanced hardware, data integration, security and support to raise the level of performance and productivity—and lower the risks—for its customers. Infogain serves a wide range of data-critical industries, including financial services, telecom, health care, manufacturing, retail and government. Infogain's service model combines a central 24/7 state-of-the-art development center with worldwide facilities and local support. Services include building technology products for companies bringing technology to market.

Infogain's system needs for its own mobile workforce requires the reliability and cost-effectiveness to support a business model crossing continents and time zones. Following its own best practices

#### SSD Benefits

- Deferring the cost of a new laptop purchase by upgrading to a SSD
- Better performance than a new HDD based laptop
- Fast boot-up and application launch time
- Fast and steady performance, even as the operating system ages and the media fills up
- High reliability
- More rugged due to lack of mechanical parts
- Less risk of data loss due to higher durability
- Lower power consumption
- Cool, quiet operation

for customers, Infogain chose to leverage its own infrastructure—upgrading laptops to SSDs.

### SSD Upgrades Provide Longer PC Lifespan and Greater Performance

Infogain replaced its conventional hard-disk drives (HDDs) with solid-state drives (SSDs) in its laptop fleet. By doing so, it not only extended the lifespan of its laptops from three to five years, but realized other SSD benefits, including significant performance gains. Says Infogain's CIO, Cliff Bell, *"My initial wanting to look at solid-state drives was actually to extend the life of my install base. If I can get two more years out of a laptop and reduce capital cost, that's great. But the outcome is that now performance is actually greater at a very reasonable cost. That was not my expectation. My expectation was to defer cost. But I've delivered performance at reduced cost. Very rarely do you get both."* Because the solid-state drives (SSDs) are PC data storage devices based on flash memory chips, they can provide faster performance than a traditional HDD. PCs with SSDs start faster, open applications more rapidly, run quieter and cooler and use less power than conventional HDD. SSDs also reduce the risk of critical data loss; the lack of moving parts makes them more durable and less likely to fail, thus they are safer for storing data.

### Immediate IT Gains

Infogain's IT department values the SSD laptops not only for lowering support and maintenance costs, but also for decreasing catastrophic risk—those instances when a hard drive crash can cause loss of valuable data. This actually is a frequent occurrence

	System with HDD	System with SSD	The benefits of system upgrade to SSD
<b>Actions taken to maintain system performance</b>	<ul style="list-style-type: none"> <li>• Ongoing maintenance</li> <li>• RAM upgrades</li> <li>• Periodic defrag</li> <li>• Reimaging the HDD every 12-18 months</li> <li>• Storage cleanup</li> <li>• Proactively restraining personal software installation and personal data storage</li> </ul>	None	Save IT cost: <ol style="list-style-type: none"> <li>1. Less maintenance</li> <li>2. Less support</li> <li>3. Fewer repairs</li> </ol>
<b>System performance</b>	Performance drop each 12-18 months due to OS aging and filled-up media, needing maintenance and repair	An immediate boost in system operation speed, which remains at a high level throughout the entire extended system life	<ul style="list-style-type: none"> <li>• Cost-effective and efficient IT operation</li> <li>• Effective work force</li> <li>• Enhanced user satisfaction</li> </ul>
<b>PC life span</b>	2-3 years	Up to 5 years	Adding up to 2 years to PC fleet longevity

for technology-centric companies. Says Bell, “The most common failure we see in a laptop is really the hard drive failing. Most aren’t very simple to recover. Hard drive failure can also cause a loss in productivity, loss of IP; a whole lot of issues can happen with that.” Sudershen Selh, System Administrator at Infogain adds, that after upgrading to SSDs, “*We have to spend less time fixing systems and transferring the data.*”

Initial deployment of the SSD solution was accelerated by ease of install—drives could be replaced and files transferred efficiently. Ghosting the data—copying everything from the HDD to the SSD, including the OS— takes only about 30 minutes. Sudershen Selh comments, “*The installation process is very simple, just like that for any hard drive. We open the laptop, remove the screws to take the hard drive out, replace with the SSD, put it in and it’s ready to go.*” The solid-state drive performs much faster. Even when the media fills up and as the operating system ages, the systems with SSDs will still perform as if they are new computers, without fragmentation.

### Increased Workforce Productivity

Infogain’s IT department is not the only beneficiary of the SSD advantages. The workforce values the performance gains, as getting information fast is essential to providing service to its demanding customer base. Infogain’s worldwide employees frequently travel between primary bases in the

United States and India. They are provided with “loaner” laptops for short-term use during their stay. This business model makes reliable equipment even more of a priority.

The renewed laptops with SSDs also made a difference with employees who were frustrated with the slow system responsiveness of HDDs. Hao Lin, Infogain’s Regional Sales Manager, remarks, “*Before I made the switch from a conventional hard drive to a solid-state hard drive, I constantly complained to my IT department about how slow my computer was. It was a big problem. This laptop will be fast enough now with the new solid-state hard drive for years to come.*” With SSDs, booting the computer from scratch and coming out of standby mode takes just seconds—compared to minutes required for HDDs. In addition, both everyday and drive-intensive tasks take less time because SSDs can perform many times more input/output (I/Os) per second.

Users also appreciated that laptops with SSDs were far quieter and did not run as hot, because of their lack of moving parts. And, since SSDs are not as vulnerable to external damage, users do not have to fear losing their data when they are on the go.

### Significantly Improved ROI

Installing SSDs made smart financial sense for Infogain. Purchasing a new laptop is about 10 times more expensive than upgrading to a SSD. Throughout the extended life cycle, SSDs will enable Infogain to save thousands of dollars each year

by substantially reducing IT repair, maintenance and support costs. In addition, by installing SSDs, Infogain was able to restore to life older, install-based laptops that had been pulled from use—deferring new system purchases for two years.

### **Infogain Moves Forward with SSDs**

The laptops with SSDs are a significant technology shift enabling Infogain to deliver its core strengths—strong practices and worldwide delivery capabilities

in CRM, ERP, integration and business intelligence. The benefits are clear: SSDs provide a business-wide solution—one that increases employee performance and satisfaction, while also lowering IT costs and improving ROI on existing systems. SSD has proven to be a great alternative to the often faulty hard drive—its reliability and speed combining greater productivity and reduced risk of data loss are invaluable.

**For more information, please visit: [www.sandisk.com/ssd](http://www.sandisk.com/ssd)**

#### **About SanDisk SSDs**

SanDisk offers a line of products that is shifting a growing range of markets from the hard-disk drive to Flash-based storage, including mobile computing, desktops, netbooks and blade servers. SanDisk SSD product families deliver far superior durability and higher performance, such as OS boot and application load. As the cost of Flash declines dramatically, users can now benefit from an enhanced overall experience, and IT can save money and improve budgets while maintaining efficient user support.

\* Third party testimonials are used with authorization and relate to the solid state drive (SSD) general product category

#### **Contact Information:**

USA: [OEMinfo@sandisk.com](mailto:OEMinfo@sandisk.com)

Japan: [OEMsalesjapan@sandisk.com](mailto:OEMsalesjapan@sandisk.com)

Taiwan: [OEMAsia@sandisk.com](mailto:OEMAsia@sandisk.com)

China: [OEMAsia@sandisk.com](mailto:OEMAsia@sandisk.com)

Korea: [OEMAsia@sandisk.com](mailto:OEMAsia@sandisk.com)

Europe: [CSDEMEA@sandisk.com](mailto:CSDEMEA@sandisk.com)

# **SanDisk®**

SanDisk Corporation, Corporate Headquarters  
601 McCarthy Boulevard Milpitas, CA 95035