

AdvanPOS Opens New Markets for POS, Thanks to Innodisk SSD Technology

SSDs beat HDD-based POS on reliability, durability, performance, power use, weight, size and noise.



Mr. Alcott Huang, supervisor of AdvanPOS' R&D division, "The increased reliability and expanded range of environments that our systems work effectively in is largely in part to our adoption of Innodisk EverGreen SSDs."

Case study overview

Company:	AdvanPOS
Country:	Taiwan
Company Profile:	Established in 2007, AdvanPOS provides Point of sale (POS) systems, focusing on retail, catering and hospitality. AdvanPOS' worldwide customer base use AdvanPOS' systems in a number of different environments and applications. Clients include: Swiss department store, Manor, and Taiwan's largest gas station chain, CPC.
Application:	Point of sale (POS) systems
Innodisk Products Used:	EverGreen 2.5" SSD, EverGreen SATA Slim
AdvanPOS' Challenges:	AdvanPOS' Challenges: With a rising demand for POS systems to be used in environments traditionally thought too exposed to the elements, AdvanPOS needed a solution to allow their systems to work in a wider variety of harsh environments as well as to increase overall product reliability.
Benefit of Innodisk's EverGreen SSDs:	The implementation of Innodisk's EverGreen SSDs, which have a wide operating temperature range and no moving parts, allowed AdvanPOS to offer POS systems that are reliable in extreme environments. Additionally, their disk monitoring software, iSMART, helped to prevent AdvanPOS' customers from losing valuable data.

Creative modern businesses are putting point of sale (POS) systems in some interesting places, like outdoors, in extreme temperature conditions, in temporary or mobile structures – and in completely new locations, such as supermarket self checkouts, where they're exposed to constant contact with customers.

The Hard Disk Problem

These demanding environments are a challenge for traditional POS hardware, particular the critical, but delicate, hard disk drive. According to leading POS maker, AdvanPOS, hard disk problems are not uncommon for POS units. Unreliable hard disk drives now actually make it difficult for POS makers to serve markets where there is high demand for their products.

Now AdvanPOS is solving its hard disk reliability problem by replacing old fashioned hard disk drives (HDDs) with tough and durable Innodisk EverGreen SSDs that are smaller, faster, use less power, and contain no moving parts to fail. With branches in five countries around the world, AdvanPOS offers a total ecosystem of POS hardware and software in the retail and hospitality sector. Innodisk SSD technology is enabling AdvanPOS to move into new markets at the same time as lowering long-term operating costs for itself and its customers.

The SSD Advantage

AdvanPOS is choosing Innodisk EverGreen SSDs because they offer a wide range of advantages over traditional technology, while keeping prices competitive. These advantages include better performance, lower power consumption, and extreme shock-resistance. Unlike HDDs, Innodisk SSDs with wide temperature are not vulnerable to overheating, so they do not require cooling fans, further reducing noise as well as removing another moving part that is prone to failure.

Innodisk Evergreen SSDs' L2 Wear Leveling Architecture, which significantly improves SSD the random data transfer rate and overall lifespan, is an additional reason why AdvanPOS selected them for their hard drive.

According to Mr. Alcott Huang, supervisor of AdvanPOS' R&D division, "Hard drive failure has always been the biggest reason for product malfunctions, and now that we have Innodisk EverGreen SSDs, which have more long life nearly 3 times of a traditional hard drive. This is not even mentioning that our clients are happier too, as their system now last longer."

SSD-based POS systems can have a higher operating temperature range than HDDs, from -40°C up to 85°C, allowing them to reach new markets where HDDs cannot be used.

Due to the frequent file writes in POS systems, defragmentation is often required. The defragmentation process in HDDs causes very noticeable system slow down which is undesirable in a POS system as it causes stress for employees and increases customer wait times. In comparison, SSDs, not limited by physical limitations of a spinning platter, offers much faster read/write speeds for a quick and non-user interrupting defragmentation process.

Case Studies

Around the world, AdvanPOS partners are discovering the tremendous advantages of Innodisk EverGreen SSDs, allowing them to open new frontiers in POS technology.

At Hamilton Island, Australia's largest and most prestigious island resort, in the Whitsunday Islands, there are over 550 POS systems in use in bars, cafes, restaurants, bottle shops, convenience stores and retail stores – they include the AdvanPOS H-POS and W-POS systems. Tough, compact and lightweight SSD storage allows Hamilton Island to place POS stations in weather exposed outdoor locations without reliability and failure concerns.

Thanks to Innodisk wide-temperature technology, no internal fans are required in the new AdvanPOS terminals at Hamilton Island, reducing noise and removing a likely point of failure in exposed locations where sand or dust may be present. Fanless operation also reduces noise in locations where silence is a virtue. AdvanPOS' flexible terminals with Innodisk EverGreen SSDs bring payment handling right to the customer, where it's most convenient for them. On-the-spot service encourages guests to spend more, stay longer, and play happier.

In Switzerland, the Manor Department Store uses the AdvanCell 2000 with Innodisk EverGreen SSDs for customer-operable pricing and weighing stations in its supermarkets at 70 locations across the country. As well as customer self-declaration of produce, these units are also used by Manor's staff for tagging meat.

Manor can rely on the tough, low-maintenance, shock-resistant Innodisk SSDs to keep running despite very heavy use from untrained customers. This reliability is a huge improvement over traditional HDDs, which can lose data or even fail completely when they take a hard knock. Manor is Switzerland's biggest department-store chain with an estimated market share of 59 percent, and some 11,300 staff.



The Innodisk Advantage

Innodisk not only offers all the benefits of SSD technology to AdvanPOS with its EverGreen line, but it also adds the value of its own advanced and easy-to-use disk monitoring software, iSMART. Unexpected failure of a POS hard drive in the middle of customer operations can be a financial and public relations disaster for a business.

Mr. Alcott Huang, supervisor of AdvanPOS' R&D division, "The number one reason why we use Innodisk Evergreen SSDs is that the SSDs let our customers know when they will fail. It has saved our customers and us numerous headaches."

With iSMART, AdvanPOS and its customers are able to detect problems with a SSD long before it fails completely, giving users time to replace a malfunctioning SSD, without losing data or inconveniencing customers.

Additionally, the EverGreen line's Error Correction Code (ECC) bits are lower than many other comparable SSDs. This results in more reliable performance and a longer data retention lifetime.

On summing up why AdvanPos chose Innodisk's industrial-grade SSDs Mr. Alcott Huang said, "The increased reliability and expanded range of environments that our systems work effectively in is largely in part to our adoption of EverGreen SSDs. And as our next generation of products with Intel's Ivy Bridge architecture come to fruition, we look forward to utilizing Innodisk's SSDs with SATA III interfaces, which will help us to realize the full performance potential of the new architecture."

AdvanPOS is used at Hamilton Island in Australia



At Hamilton Island Resort in Australia, AdvanPOS Fanless H-POS is placed beachside. The Innodisk SSD inside the system withstands the daily heat, sand and other harsh elements that it's exposed to.

Innodisk and partnership

Innodisk works together with its partners to help them bring innovative POS technology to new environments, new markets, and new customers. With the reliability of SSDs, backed by Innodisk's quality control and monitoring software, POS technology comes closer to customers, wherever they are.

About Innodisk

Founded in March of 2005, Innodisk Corporation has become the industry-leading manufacturer and solution provider of flash storage devices and DRAM modules for industrial applications and embedded systems, with a focus on the enterprise, industrial, aerospace, and defense industries. Unlike competitors, Innodisk has concentrated from the beginning on industrial NAND flash and SSD products. With its long experience and an unrivaled knowledge of the memory industry, Innodisk has developed a series of products with excellent quality, remarkable performance, great cost-efficiency, and the highest reliability.

About AdvanPOS

AdvanPOS designs and manufactures advanced POS systems that satisfy modern retail and hospitality applications. Combining industrial talents and leading PC technologies, AdvanPOS offers a full range of self-service and point of service (POS) systems that feature faster operation, easier maintenance, customer-friendly display and outstanding designs for the most demanding POS, kiosk, ATM, retail and other self-service applications