

A Greener and Smarter AI Powered POS Self-Checkout System

A self-checkout system for products without barcodes, facilitating a smarter shopping life



Introduction

Innodisk worked with its partner to create an AI powered POS self-checkout system with out-of-band (OOB) remote management.

There is a hidden war going on in our supermarkets, environmentalists want less packaging, but the current technology we use in self-checkout machines requires products to have barcodes, and you can't have barcodes without packaging. To resolve this issue, Innodisk and its partner ASUS IoT developed an AI solution that can be trained to detect items based on how they usually look, eliminating the need for barcodes.

However, complex systems are more likely to fail, and when it happens, people expect immediate system recovery to avoid long queues. Meanwhile, system owners need to make sure their service functions properly 24/7 to maintain great shopping experiences. With Innodisk's out-of-band (OOB) remote management solution, AI deployment has never been easier.

Our Roadmap to Success

InnoAGE SSD

- The World's first hybrid SSD with an Azure Sphere inside
 - Encrypted end-to-end security from edge to cloud
 - Supports out-of-band network management
 - Supports wireless 2.4/5GHz dual-band 802.11 a/b/g/n Wi-Fi and Ethernet
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Challenges

- Engineers must be able to remotely manage the system in a very short time
- Must be able to restart the system 24/7 and recover even after a system crash
- Data must be secure at all times during transit

Solution

- InnoAGE remote management allows full remote management
- InnoAGE's OOB technology allows commands to be sent even if the system is offline
- InnoAGE features end-to-end encryption
- InnoAGE supports Microsoft Azure Cloud Service and private cloud

Conclusion

Innodisk and its partner created a solution that was not only able to use AI to detect items for checkout, but was able to be remotely recovered during crashes. The system has now been deployed to chain bakeries around Taiwan, and is improving the speed at which customers can complete checkout with barcode-less items. Both green and smart objectives have been achieved at the same time. The final result is less packaging and successful AI deployment, and this not only significantly reduces cost, but is better for the environment.

Our Promise

At Innodisk, we believe that any challenge can be overcome through cooperation. By maintaining a strong line of communication all the way from inquiry to implementation, we ensure a tailor-made solution that fits your application. We remain committed to innovation with our continual focus on total hardware, firmware, and software integration.