



Modernizing the cinema experience with highly efficient digital signage

Signbox Microsystems brings scalability and style to Golden Village Cinemas' digital signage system powered by Intel® Atom™ processor and Intel® OPS technology



"By partnering with Intel, Signbox was able to deliver a digital signage solution that was easy to manage and scalable, and allowed easy installation and maintenance. Through this digital signage system, Golden Village customers can now enjoy full HD movie trailers, animated e-Posters and attention-grabbing advertising content."

Stuart Lakin
Director
Signbox Microsystems Pte Ltd

CHALLENGES

- **Meet City Square Mall's movie theme requirement.** Create a signage system for Golden Village that will fit the 'You Run the Cinema' theme of City Square Mall.
- **Provide more attractive cinema collaterals.** Replace traditional movie collaterals like paper posters, box office and candy bar plastic signages that used text lights to attract customers to the cinemas.
- **Reduce wiring and extenders of signage system.** Reduce the impact of wiring and extenders upon the original build of the new digital signage system to reduce costs.

SOLUTION

- **Deploy digital signage system.** Meet City Square Mall's movie theme requirement by deploying the most modern digital signage system that boasts style and sophistication to reflect the cinema's image.
- **Utilize Intel Atom processor for the digital signage system.** Build a high-definition digital signage network using Intel Atom processor to bring clear graphics that can be easily updated and maintained.
- **Utilize Intel OPS technology.** Deliver pioneering open pluggable specification (OPS) technology to standardize the design and development of digital signage devices and pluggable media players. This would simplify installation, usage and upgrades to minimize costs.

TECHNOLOGY RESULTS

- **Highly efficient digital signage system.** Brought high- performance, high-definition digital signage network with clear graphic display that can be updated and maintained easily.
- **High CPU performance.** Intel Atom processor provided a high-performance CPU that can run active database plug-ins to items such as venue management systems.
- **Easy deployment and maintenance.** Intel OPS technology addressed digital signage market fragmentation, making deployment of interchangeable systems faster and in higher volumes.

BUSINESS VALUE

- **Attracted more movie patrons.** The HD digital signage system more customers to watch movies at Golden Village, as well as created branding and advertising opportunities.
- **Reduced maintenance costs.** The centralized system utilizing OPS technology reduced total cost of ownership (TCO) by 10 percent and lowered costs on reprinting and repositioning of movie posters.

Introduction

Since its establishment in Singapore in 1992, Golden Village Cinemas has committed itself to bringing the best movie-going experience through its modern, luxurious multiplex cinemas. Besides offering more movie varieties at convenient screening times, more ways to buy movie tickets easily, and the comfort and luxury of watching movies through its state-of-the-art cinemas, it also focuses on designing its cinemas to be more attractive to moviegoers. To achieve this, Golden Village has tasked Signbox to deliver a modern, scalable and stylish digital signage solution at their new cinema location in City Square Mall.

Taking cinema experience to the next level

As with other state-of-the-art Golden Village multiplexes, the City Square Mall branch boasts of sophisticated facilities such as stadium seating and wall-to-wall digital screens with crystal-clear digital projection. The City Square Mall branch also boasts of being Singapore's first cinema with an auto-gate system, which sends confirmed movie bookings directly to moviegoers' phones. Golden Village wanted all its movie collaterals to reflect sophistication and modernity, to meet City Square Mall's 'You Run the Cinema' theme.

Going modern

To meet the mall's requirement, Golden Village's signage system had to undergo a makeover. In its old system, text lights used only showed limited information, and fewer opportunities for branding and advertising content. The old system also used PC, which involved a lot of cabling and challenges in maintaining and repair. Wiring and extenders that were needed also presented cost implications.

"We thought of replacing our old system with the most modern digital signage system possible, which presented a more up-to-date, stylish way to attract moviegoers," says Justin Ng of Golden Village.



Intel® OPS technology simplifies interoperability and application upgrades for Golden Village Cinemas' digital signage system

Golden Village partnered with Signbox Microsystems, a leading digital signage software provider in the Asia Pacific that develops state-of-the-art digital signage solutions for businesses to help them communicate dynamically with their customers.

Golden Village has a long relationship with Signbox that started way back in 2004. As its digital signage partner, Signbox supplies and supports a complex network of digital signs, displaying everything from real-time session times, dynamic candy bar menus, and static and video e-posters across all Golden Village branches in Singapore.

For this project, Signbox was tasked to create a digital signage system that will have full high-definition (HD) video capabilities across the site, as well as integrate signage for the candy bar, session time information and e-posters. The system should also be able to provide live access to Golden Village's ticketing database to allow patrons to view screening times. Lastly, the digital signage system should be able to reduce wiring and extenders to lessen cabling costs. In short, Golden Village wanted a system that was not only easy to manage and scalable, but also required minimal architecture to allow ease of installation and maintenance.

"There was lack of flexibility and no centralized management in Golden Village's old system. Using the old system also made Golden Village pay more on the reprinting and repositioning of movie posters. With the old system, there was clearly no flexible, cost-effective method to really engage with the customers," shares Stuart Lakin, director of Signbox Microsystems.

To ensure that Golden Village's requirements were met, Signbox partnered with Intel to provide digital signage solutions for Golden Village.

"Intel introduced open pluggable specification (OPS) modules ranging from Atom to Core CPUs to Signbox. The compact form factor and ease of deployment and maintenance, plus HD video play capabilities from Intel platforms won the design of the new digital signage system for Signbox, who proposed Atom-based OPS digital signage

system to Golden Village," says Zhang Xiaofan, field application engineer for embedded at Intel.

Simplified digital signage solution

Signbox and Intel® proposed the use of Intel® Atom™ processor, which enables full HD video display and supports strong CPU performance to run active database plug-ins to venue management systems. OPS technology was used to simplify the deployment and make remote management easier. OPS is an integrated digital signage media player solution that interconnects with the display panel via a standard mating internal connector interface. Intel created the OPS to address digital signage market fragmentation and simplify device installation, usage, maintenance and upgrades.

Installing digital signage equipment based on Intel OPS technology helped Signbox implement scalable digital signage applications that can network easily with other equipment, simplifying interoperability and application upgrades for Golden Village's digital signage system.

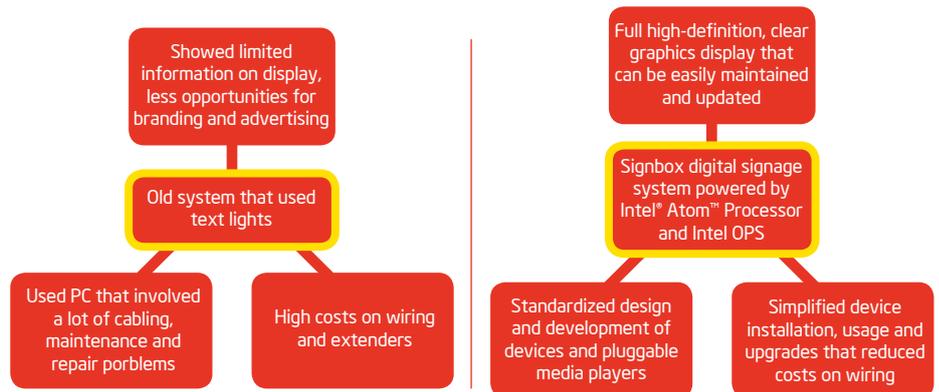
Bringing the latest in digital signage system

Signbox was able to deliver a digital signage network of over 25 screens, which all used OPS and video wall technology brought to market by Intel. Golden Village has been able to introduce

new media types and deployment techniques to its digital signage system. This has seen an increase in animated e-posters for the new Hollywood blockbusters being deployed to the signage network. More importantly, Golden Village is able to deliver a high-definition digital signage network that excites and entices customers with its clear graphics that can be easily updated and maintained.

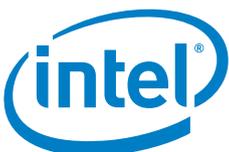
Total cost of ownership (TCO) has also fallen by 10 percent compared to the previous systems used as there was no need for lengthy cable runs or HDMI extenders. The digital signage system was also easy to use and maintain as there was no need to change movie posters manually and allowed easy updating of movie posters electronically.

"Golden Village customers are now witnessing full HD, animated e-posters and advertising for upcoming blockbusters and related products and services. Through content scheduling and ease of change via the Signbox digital signage system powered by Intel Atom processor and Intel OPS technology, customers are targeted with more relevant information than they would have been previously," shares Lakin.



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