

MajorLink®

www.majorlink.com

Transaction Kiosk



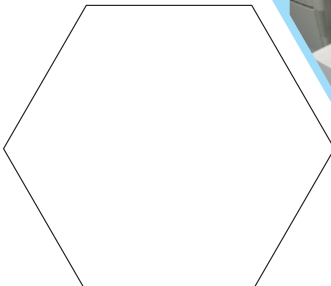
Digital Signage



Smart Card



Wireless Interaction





Company Overview

MajorLink develops self-service kiosk and digital signage systems with specialization in transaction automation and remote monitoring. We also provide stunning solutions for card-based transaction and wireless interaction. Our state-of-the-art platforms revolve around the concept of user participation and multi-channel integration, and cover the areas of ticketing, printing, loyalty, payment and media applications.

MajorLink concentrates on the high growth and emerging markets with a primary aim to open up new dimensions and blue oceans for self-service and interactive business – the essential discipline for new business success. We continue to stay at the forefront of technology innovations and assist our forward-thinking clients to deploy proof-of-concepts and launch first-of-its-kind projects.

MajorLink is well recognized for its continuous innovation in self-service and interactive platforms, and our success is evidenced by the numerous awards that we have obtained including accolades from the Hong Kong Awards for Industry, Hong Kong ICT Awards, Innovative Entrepreneur of the Year award and the Deloitte Asia Pacific Technology Fast 500 award. Over the years, we have consulted and developed hundreds of innovative solutions for reputable local players as well as world renowned clients.





**香港工商業獎
HONG KONG
AWARDS FOR
INDUSTRIES**

Hong Kong Awards for Industry is an annual Awards scheme established in 1989 to recognise and encourage excellence, as well as to promote successful practices and strategies in different aspects of industrial performance.

2007 Hong Kong Awards for Industry:
Certificate of Merit in Machinery & Equipment Design
(POPstore™ TDM System)

2003 Hong Kong Awards for Industry:
Certificate of Merit in Machinery & Equipment Design
(SenPass™ Card System)

2002 Hong Kong Awards for Industry:
Certificate of Merit in Machinery & Equipment Design
(POPstore™ Card Terminal)

2001 Hong Kong Awards for Industry:
Certificate of Merit in Machinery & Equipment Design
(POPstore™ CD-PRO Kiosk)

2000 Hong Kong Awards for Industry:
Machinery & Equipment Design Award
(SmartSign™ Wireless Display)



Hong Kong ICT Awards is an annual competition that recognizes, promotes and commends the excellent achievements to which Hong Kong ICT professionals and organisations contribute.

2012 Hong Kong ICT Awards:
Best Green ICT (Adoption-SME) Bronze Award
(AEL - Auxiliary Device for Food Waste Decomposing System)

2011 Hong Kong ICT Awards:
Best Business (Application) Certificate of Merit
(Harbour City - iConcierge Service Kiosk System)

2008 Hong Kong ICT Awards:
Certificate of Merit in the Best Ubiquitous Networking
(Mobile Enterprise Solution)

(Bluetooth PhotoPrint System)

2008 Hong Kong ICT Awards:
Certificate of Merit in the Best Ubiquitous Network
(Digital Media Marketing Campaign)

(Vending Ads Solution)



Deloitte Technology Fast 500 Asia Pacific program recognizes technology companies that have achieved the fastest rates of annual revenue growth in Asia Pacific including China, Hong Kong, Taiwan, Japan, Singapore, Malaysia, Indonesia, Australia, New Zealand and India during the past three years.

Deloitte Asia Pacific Technology Fast 500 Company
(Asia ranking: 126; HK ranking: 8)



Innovative Entrepreneur of the Year Award aims to encourage and recognize the efforts of local young, innovative entrepreneurs and their contributions to industry and society.

Innovative Entrepreneur of the Year
(top 10 award recipients)



Linux Business Award aims to encourage the deployment of IT applications on Linux platforms in order to improve business productivity, and to recognize business excellence in this field.

Linux Enterprise Award – Certificate of Merit
(DSD Remote Monitoring Project)



Intelligent20 Award recognises the strategic use of IT in Asian corporations and organizations that achieves four key performance indicators: customer satisfaction; product/service quality assurance; return on technology investment; and innovation.

Intelligent20 Award (UA Loyalty System)



Mediazone Hong Kong's Most Valuable Companies 2010
(Selected as one of 48 most valuable companies)



Cisco AXP Contest - First Prize Winner
(Automated Loyalty System Platform)



ISO9001 Quality Assurance System sets out the requirements to be met by the Quality System when a business is involved in design, development, production, installation and/or servicing.

ISO9001 Certified since 2000.

SONY



Transaction Kiosk



Transaction Kiosk



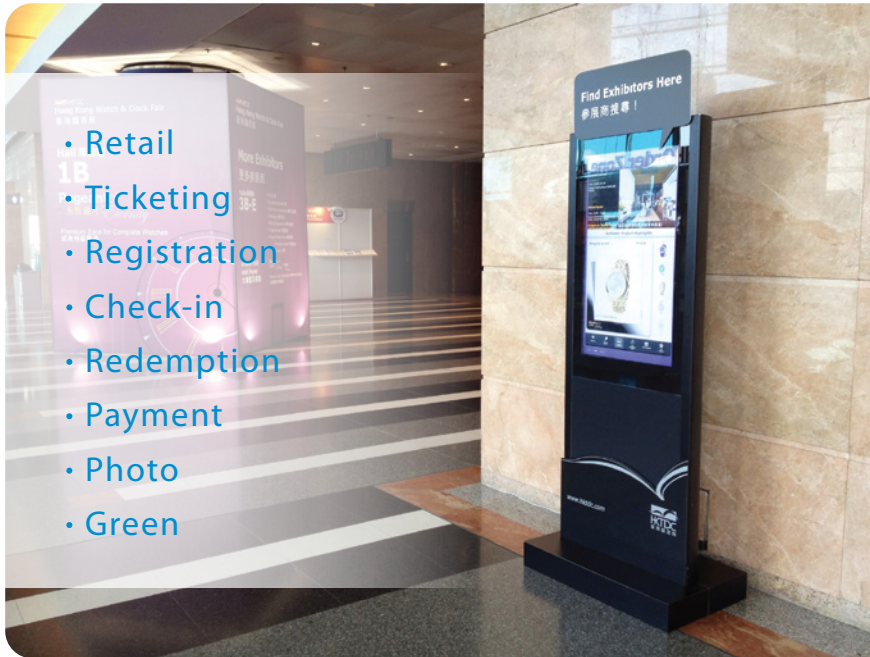
Digital Signage



Smart Card



Wireless Interaction



- Retail
- Ticketing
- Registration
- Check-in
- Redemption
- Payment
- Photo
- Green

Transaction kiosk changes the way we interface with the customers. Things that once were carried out face-to-face now become face-to-interface interactions. The primary function for this human machine interface is to enable a self-serve interaction so that users can serve themselves with unmanned operation. Benefits for users include round-the-clock service, convenience of use and privacy of transaction. For retailers or merchants, transaction kiosk is considered to be the most cost effective way for creating a branded storefront or automated store.

MajorLink specializes in the development for new ways of communication and interaction for automated transaction and point-of-purchase operation. With a portfolio of specially-designed kiosk modules, MajorLink strives to empower human machine interaction so as to enable higher interactivity and added convenience. These kiosk modules include custom-build kiosk terminal, card payment SDK, monitoring module and other building blocks for enhancing transaction automation and remote monitoring applications.



Digital Signage



Transaction Kiosk



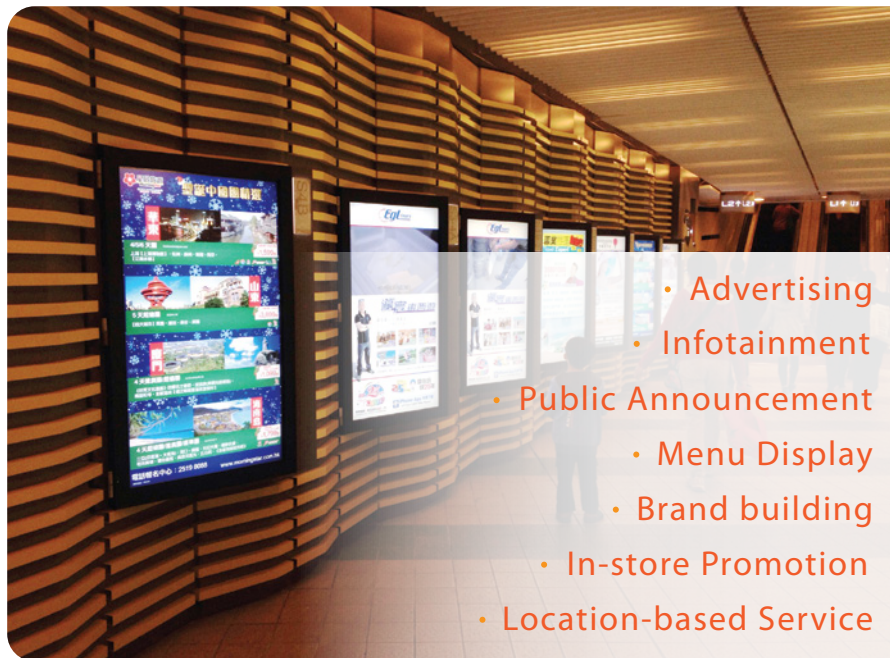
Digital Signage



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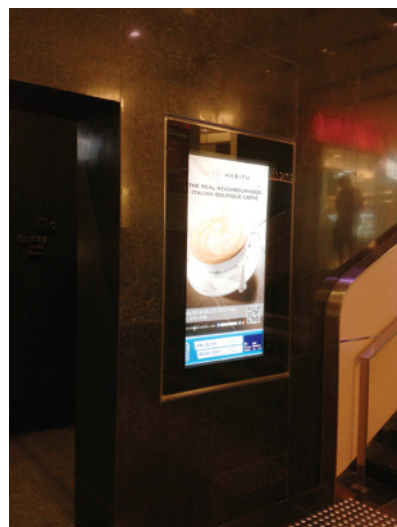


- Advertising
- Infotainment
- Public Announcement
- Menu Display
- Brand building
- In-store Promotion
- Location-based Service



Digital Signage like LCD, plasma or projector screen, once an advantage, is now a necessity to competitiveness for in-store marketing and out-of-home promotion. This has also captured the immense interests of operators in out-of-home advertising space. The demand for latest display technology, solutions and software are now clearly strategic in nature. The real opportunity arises when the costs of these displays go down substantially and that the displays can now be centrally linked and remotely managed through content management.

MajorLink advocates the concept of digital narrowcasting which is about the digital delivery and content serving for networked signage that can be centrally controlled and remotely triggered through IP network. With a combination of customized hardware and proprietary software, MajorLink offer platforms that enables networked digital signage with time-specific, location-based and synchronized capabilities. As a pioneer for proximity marketing, MajorLink continues to focus its development on optimizing content serving through wireless or mobile networks.



Smart Card



Transaction Kiosk



Digital Signage



Smart Card



Wireless Interaction



- Bill Payment
- Automatic Identification
- Asset Tracking
- Fare Collection
- Membership Control
- Loyalty Management
- RFID
- NFC



Smart Card is sweeping across the world and opening up new dimensions in our everyday life. Whether it is for automatic identification, fare collection or customer loyalty applications, smart card has proved its unique appeal among others being the preferred card media. Contactless smart card is perhaps the most widely adopted card type as it does not require line-of-sight between the reader and card to exchange data. It not only speeds up the transaction but also enable a new paradigm of identification and tracking applications.

MajorLink offers smart cards and systems, terminals and complete solutions that have been specifically designed for “one card multi-use” applications. In close collaboration with card vendors, MajorLink has developed unique solutions and optimizes their use with custom-built systems based on modular smart card hardware and software. MajorLink is also actively pursuing the research on advanced identification technologies including NFC in addition to card-based RFID communication, and closely monitoring their evolving applications.



Wireless Interaction



Wireless Connectivity has become the most convenient way for communication in today's marketplace. Without the need for physical connection, things that were once apart can now be linked up easily and connected over the air without boundaries. Combining the wireless connectivity with the Internet network brings the ubiquity of access and interaction. The prevalence of mobile phone being the most indispensable and personal device has catalyzed the context of information sharing and content delivery for kiosk and signage applications in out-of-home environments.

MajorLink enables the ubiquity of wireless interaction with its uniquely designed wireless modules that can ride on SMS, GPRS, 3G and/or WiFi network to remotely manage kiosks or signage installed in fixed location or moving object. With an enduring focus on the adoption of mobile bluetooth, 2D barcode and other proximity technologies, MajorLink is able to mobilize user interaction for both online and offline content integration. MajorLink also stays focused on the trend for the upcoming NFC applications for intelligent kiosk and smart poster.



Retail Innovation

Every retailer strives to sell more and accomplish the bottom line. It is no longer enough to offer products and services at fair prices. Successful retailers engage their customers on emotional levels and they know customer experience is the key to maintain a loyal customer base. Although human touch is the essence of good service, good people are hard to find and keep. Self-service makes it a good choice for offering unmanned operation for repetitive tasks while freeing well-trained staff to focus on those who truly need special care and attention.

Retail innovation does not limit itself to self-service but also means a multitude of value-added services like in-store signage, gift card, loyalty program and many other customer-driven initiatives. Self check-out grows quickly as a fast lane for small purchases. With digital signage being installed on product shelf or in front of cashier, there is never a better time to inform customers about the latest offers at the point of decision. Gift card being the electronic gift voucher is also getting popular. This is a winning proposition for retail merchants as they can get the fund from customers in advance while customers can conveniently pay for goods or services on a cashless manner.



Interactive Advertising

The prevalence of new media offers much appeal to marketers who have products and services to offer or who have ad messages to deliver across. Advertisers can take advantage of the new media because they are either reaching a different audience, able to afford the new media, or can target a message appropriate to the product or service within a specific time period at a specified location. Unlike the traditional media that involves one-way communication which is highly unfocused, new media allows marketers to establish an interaction with individual consumers.

The market for interactive advertising has emerged, driven by convergence of communications and digital technologies. The advances in communication infrastructures, prevalence of Internet access and penetration of mobile phones have come together to create a new paradigm for interactive advertising. In particular, content is the lifeblood of any advertising network - and content management is its heart. How to manage content so as to create the maximum appeal for user interaction is critical to success. Behind the scenes are the emerging technologies such as time-sharing, location positioning, audience measurement and wireless interaction that facilitate the building up of a new interactive media.



Smart Campus

Most universities, colleges and schools today are confronting with the challenges towards campus modernization with shrinking funding and rising enrollments. How to leverage on the initiatives of information technology for quality education becomes especially strategic. Today, school administrators are turning to ICT technology in areas of computerization, networking and/or multimedia applications as enabler to enhance the efficiency of administration and effectiveness of teaching.

Campus smart card is getting prevalent as a key ICT innovation for smart campus. It provides unsurpassed convenience to school administrators in facilitating a wide range of authentication control and facilities usage applications. It is versatile for application as a student pass for attendance control, smart key to gain entrance access or electronic token for payment at canteens. Besides this, there are a multitude of services that require micro-payment. Smart card in the form of electronic purse can be used to enable such cashless transaction. Of which photocopying and printing services can now be charged without the need to incur additional administration efforts.



Vending Automation

For decades, vending machine has been deployed inside convenience stores or in the high street. In the past, people used to associate vending machine as a proprietary terminal that simply sells soft drinks or candies. With the advent of technologies and widespread acceptance of automated services, vending machine is no longer something of the past. An evolution is taking place in the vending business that promises opportunities to support cashless payment, facilitate stock replenishment and prompt for other value-added services like remote management and vending advertising.

New generation vending terminals are designed to support e-payment and e-fulfillment and some new initiatives can even allow dispensing of "print-on-demand" products or distribution of digital goods like music or video download. Remote management using mobile connectivity plays an appealing role to link up scattered vending machines into the central server so that transaction data and stock refill status can be automatically uploaded. While vending advertising is also an innovative idea as a reverse approach to generate revenue through advertising with free vending offers. That is, customers pay nothing to get a free drink or free print but they are "captive" to watch a video ad during the waiting time before the goods are released.



Info Transport

Driven by the advances in electronics and communication, the concept of info transport prevails in the transport industry for presenting new business opportunities. Today, forward-thinking transport companies are proactively re-formulating their strategies to improve customer service and aim to leverage on their existing infrastructures to implement value-added services. For example, outdoor advertising at bus shelter and in-vehicle LCD advertising in addition to car body advertising has become a significant revenue generator.

To provide better passenger information is the service pledge for transport companies. Especially for passengers who are not familiar with the routing, it's important to disseminate the next stop information so that people know where to get off the vehicle. So in-vehicle station announcement system becomes a necessity for ensuring a good service image. While next vehicle arrival for waiting passenger at station is another service that is mostly desirable. It will also be beneficial to provide value-added content like news headlines and weather forecasts so as to keep passengers entertained inside vehicle or waiting in the station.



Print Management

Digital printing is an important growth segment of the imaging industry. According to analyst firm IDC at 2007, the worldwide printing market is estimated to be worth at least US\$59 billion annually. Of which, 80% of this sales is generated from the business printing markets. No wonder the key printer vendors have been launching new initiatives and expanding their portfolios in order to capture the market share. In particular, the focus has geared towards more color printing and digital technology in the business market.

The trend in today's business printing is the digitization of virtually all forms of communication and information. This brings a multitude of value-added applications in areas of output optimization, job accounting and print management. Of which, on-demand copying and printing are getting the most attention for pay per print application. Self-service printing on demand is also getting popular for shared printing and hotspot printing applications.





Shopping Mall adopts interactive e-Directory

Project : iConcierge System for Harbour City - the largest shopping mall in Hong Kong

Technologies : Video Kiosk; Unified Communication Server; Interactive e-Directory System

Highlights : A custom-build directory kiosk which have a guided directory assistance by live agent at remote site. Supported by the video communication server and the remote co-browser integration, customer and agent can interactively share the directory map and shopping-related content.

Multi-Channel Ticketing for Observation Deck

Project : Multi-channel Ticketing System for Sky100 at 100/F International Commerce Centre, Hong Kong

Technologies : POS System; Online Portal; Ticketing Kiosk; Mobile Handheld

Highlights : Building up POS box office and self-service kiosk, visitors can also buy tickets using different channels including online or by mobile. The system can support multi-payment methods which allow tourists from overseas to pay for the tickets in a convenient way.



Exhibition adopts e-directory kiosk as exhibitor locator

Project : e-Directory Kiosk for Hong Kong Trade Development Council

Technologies : Locator Kiosk; 42" Touchscreen Kiosk; Event CMS

Highlights : Building up a directory kiosk that can allow visitors to search the exhibitor location and company information at their convenience inside the hall. The movable design allows the ease of setup and it is convenient to setup in different locations according to the visitor traffic.

Self-Service Ticket Dispensing Expands Outside Cinemas

Project : Ticket Dispensing Machines for Cityline - the premier ticketing service provider

Technologies : Ticketing Kiosk; Print Sensor Interfacing; Multiple Reader Support

Highlights : Providing self-service ticketing kiosks with the key technologies of ticket printer integration and multi-reader interfacing. The reader/ scanner is able to verify user request and support unmanned ticket dispensing.



Housing Department provides Self-Serve Rent Enquiry Service

Project : Rent Enquiry kiosks for 180 estates under the Housing Authority of HKSAR

Technologies : Printing Kiosk; e-Tenant Card Ingeration; Billing Server Intergation

Highlights : Building up a customer service kiosk that can allow tenants to check and print out their current rent information with their existing e-Tenant cards.



Hospital Patients can Pay for Prescription using Kiosks

- Project** : Self-Payment for Prescription at hospitals under Hospital Authority of HKSAR
- Technologies** : Payment Kiosk; Octopus Integration; Billing Server Integration
- Highlights** : Building up a self-payment channel for patients to pay for prescription using their Octopus card without the need for cash changes. This alleviates the queuing problem for paying at the cashier.

Mobile Phone Shops Provide Self-Service Bill Payment

- Project** : Bill payment through self-service at China Mobile phone shops
- Technologies** : PaymentKiosk; Octopus Integration; Billing Server Integration
- Highlights** : Providing a wall-mount kiosk with touchscreen display, receipt printer and integrated Octopus reader into each of the 46 mobile phone outlets, providing a fast and convenient channel for customer to settle their mobile phone bills.



Hotel uses Kiosk for Self-Service Roster and Payslip Printing

- Project** : Employee kiosk for HR management at CROWN Macau hotel
- Technologies** : Printing kiosk; Roster/Payslip Printing Software; Staff Card Reader Integration
- Highlights** : Building up a self-service kiosk that can print out the roster on demand when the staff swipes or waves their staff card against the reader. The kiosk is interfaced with the roster server under the HR system on real-time basis such that the most updated roster details can be retrieved for instant printing.

Hotel Patrons registers Trade Fairs with Kiosks at Hotel Lobbies

- Project** : Self-Registration Kiosk for Hong Kong Trade Development Council
- Technologies** : Registration Kiosk; GPRS enabled; Badge Printer Integration; Remote Monitoring Support
- Highlights** : Building up a self-registration kiosk that can allow business travelers to register their personal and business data at their convenience inside the hotel lobby.



Karaoke Chain boosts Sales with Loyalty Smart Card

- Project** : Loyalty and Membership Card System for California Red Karaoke in Hong Kong and Malaysia
- Technologies** : Smart Card; Card Issuance; Loyalty Kiosk; Management Backend
- Highlights** : Building up a contactless smart card based loyalty platform that supports the use of smart card to accumulate bonus points and to enable a multimedia loyalty kiosk to display latest MV and provide self-serve channel for bonus point enquiry and redemption on demand.



/// Digital Photo Kiosk adopts Electronic Card Payment

- Project** : Digital Photoprinting Kiosk for SONY Hong Kong
- Technologies** : Photo Kiosk; Octopus Kiosk; Ezlink Integration; Credit Card Integration
- Highlights** : Enabling the photo kiosk to accept electronic card payment such that users can pay with Octopus card in Hong Kong, Ezlink card in Singapore and credit card in both places.

/// Sports Betting in Macau accepts Self-Service



- Project** : Self-Service Betting for Macauslot
- Technologies** : Betting Kiosk; Smart Card Integration; OMR Reader Integration
- Highlights** : Building up an automated betting kiosk network that supports touchscreen service selection, automatic bet slip scanning and cashless payment using proprietary smart card.



/// Pilot launches for Mobile Ticketing using 2D Barcode

- Project** : Mobile Ticketing Kiosk for UA Cinemas
- Technologies** : Ticketing Kiosk; QR code Integration; Mobile Portal Interfacing
- Highlights** : Building up a ticket dispensing kiosk that can identify the confirmation code and then issue the paper ticket right on the spot.

/// Loyalty Card can Now be Issued Right on the Spot



- Project** : Automated Loyalty System for UA Cinemas
- Technologies** : Loyalty Kiosk; Photo Registration Kiosk; Card Issuing System; Personalized Smart Card
- Highlights** : Issuing card on spot is a tactic to engage the customer right from the beginning of the card issuing process of the loyalty program. With the use of a photo kiosk, patrons input their personal data and take picture of themselves. This information is then automatically programmed into the card memory as well as printed onto the card face.



/// One Touch Kiosk Shines at Golf Driving Ranges

- Project** : Out-of-home Ad Media at City Golf Club and Asia Golf
- Technologies** : Golf-ball Shaped Kiosk; Outdoor Design
- Highlights** : Developing a network of touchscreen kiosk for user to view and access the content of interests. These kiosks are designed with the stunning and big golf-ball shaped enclosures.



/// **Silent-Serve Queuing Display for Fast-Food Chain**

Project : Queuing display board for fast food chains - Cafe De Coral

Technologies : LED Display; Control keypad; Build-in Barcode Scanner

Highlights : The LED-based electronic displays are installed in eye-catching positions for showing the waiting tag number visually.

/// **Airport Shuttle adopts Display for Station Announcement**

Project : Infor Channel for MTR Airport Express buses

Technologies : Mobile Media Player; LCD Display; GSM-SMS Enabled

Highlights : Providing an in-vehicle station announcement channel that shows next hotel stop information on LCD display screen in addition to the voice announcement in tri-lingual of English, Cantonese and Mandarin.



/// **Print Management and Cost Recovery Solution Prevails**



Project : Pay-Per-Print System for HP printers

Technologies : Print Management Kiosk; Print Control Software; Octopus Card Integration

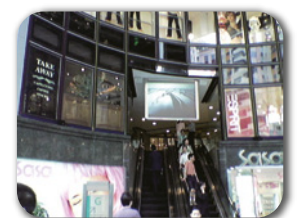
Highlights : Developing a custom-build print management system that supports pay-per-print charging using Octopus card or other prepaid card system. The system is interfaced with the network printer with a console that shows the print jobs for user to select and pay.

/// **Out-Of-Home Media using Rear Projection Technology**

Project : Out-of-home advertising display system for MacroVision at World Trade Centre

Technologies : Media Player; 140 inches rear Projector Screen; Automatic Switcher

Highlights : Providing the AcroView player to support the ad management control and enable cost-effective display of high resolution MPEG2 video over the 140 inches projector screen. On every half-hour interval, the player is also automatically scheduled and switched to the pay TV news channel. This will stay for 10 minutes and then switch back to the display of commercial ads.





Supermarket Chain deploys Digital Signage Displays

Project : In-store Marketing Media for Tesco Lotus in Bangkok

Technologies : Media Player; 42" & 15" display; Wifi network; CMS backend

Highlights : Developing a network that covers 350 displays in 23 stores for showing promotion and advertising content in zones grouped by different categories. The ad content are transmitted and updated to each store and player via leased line and WiFi Connections.



Free Bluetooth PhotoPrint to Exchange Ad Eye Balls

* This marketing campaign is awarded the Digital Media Campaign Certificate of Merit for Best Ubiquitous Networking in the Hong Kong ICT Awards 2008.

Project : Bluetooth photoprint kiosks for Chanokio at airport and universities

Technologies : Photo Kiosk; Bluetooth Photoprint Software; Project Management Service

Highlights : Users are offered FREE prints by sending their photos from their camera phones via bluetooth transmission to the kiosk. Before the photo is being printed instantly on spot, the promotional video for the equestrian event together with the sponsorship ad video lasting for about 1-2 minutes will be displayed for user viewing.

Prepaid Card Payment for Photocopying Service

Project : Copier Controller for Octopus-enabled photocopying service

Technologies : Copier Reader; Photocopier Interfacing; Octopus Integration

Highlights : Developing a custom-build copier reader that supports charging for each photocopy using Octopus card payment. The copier reader controller interfaces with the photocopying machine and pass transaction data to Octopus reader for card transaction.



Schools go for Campus Smart Card Application

Project : Campus Smart Card System for ESF - West Island School

Technologies : Smart card; Card Issuance System; Copier Reader; Print Control Terminal; POS integration

Highlights : Building up a truly integrated campus smart card platform that supports "one card for multi-applications" for school being a closed community. The smart card is not only a new generation student pass but also a key to access various types of campus services including copying, printing, access control and payment at tuck shops.



Enhanced Self-Ordering Software installs for Photo Stores

Project : Self-ordering software for digital prints for Kodak Express Stores

Technologies : Photo Self-Ordering Software; Photo Printer Integration

Highlights : Developing an enhanced photo ordering software so that users can retrieve digital file, select images, define quantity and confirm order. User can also choose to obtain the photo print-out at the same day, next day or instantly through the high speed photo printer.



Wayfinder Kiosk Prints Mini-map for Visitors

Project : e-Directory Kiosk for Lan Kwai Fong Entertainments

Technologies : Wayfinder Kiosk; E-directory Software

Highlights : Building up a wayfinder kiosk so that visitors can touch screen to search for the list of restaurants and bars under Lan Kwai Fong Entertainments. The kiosk shows the visual presentation of the selected outlet on screen. User can also select to print out the mini-map of the location for the target outlet.





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