

SkyBus – Bus Ticketing System



The Customer:

SkyBus is a Melbourne based private bus company that specialises in providing express bus services between Melbourne Airport at Tullamarine and Southern Cross City Train Station in Melbourne. It also provides complimentary bus hotel transfer service within the Melbourne central business district.

The Requirements:

SkyBus's current ticketing system was aging and becoming difficult and costly to maintain. SkyBus wanted to both upgrade their ticketing system as well as improve customer service and administrative operating cost.

The ticketing system had to support:

- Sales of tickets from Ticket booths
- Sales of tickets via the Internet
- Sales of pre-printed ticket books
- Support for single and multi-use tickets
- Real time ticket validation (when boarding buses)
- Management and shift reports

The Solution:

Unique Micro Design (UMD) used its "engineering ICT solutions" skills to custom develop a fully integrated bus ticketing system to meet SkyBus's exacting requirements.

Key Solution Components

HARDWARE

POS Terminal



Senor ISPOS Integrated 15" LCD touch screen terminal with integrated computer housed in a rugged aluminium housing.

Ticket Printer



The Custom Engineering TK300 Series are the most advanced ticket printers on the market for applications requiring durability with reliability and latest technologies, where heavy-duty printing is required. TK300 printing is fast — with up to 200 mm/s print speed for tickets — and is able to print widths from 20 to 82.5 mm. This is easily adjustable by the user. Paper/ticket thicknesses from 80 to 255 gsm are supported.

Barcode Scanner



The Honeywell MS7580 Genesis, the world's first presentation area-imaging scanner engineered to decode all standard 1D, PDF and 2D codes, provides enhanced productivity and revolutionary imaging technology in an elegant, yet durable design. Its form factor make this product suitable for environments ranging from manufacturing to healthcare to retail POS.

Wireless



The Ubiquiti **airMAX** Pico-Station access points provide a simple, flexible and powerful solution set of products for WiFi deployment in challenging environments and do so highly cost effective manner.

Mobile



The Casio IT-800 is a hand held computer that has been designed to combine toughness and durability into a compact and elegant design, suitable for use in a wide variety of environments.

The IT-800 is supplied standard with Windows Mobile 6.5, a high impact resistant display, WiFi, Bluetooth, NFC RFID Card Reader/Writer, 2D barcode scanner, Camera, 3G connectivity and GPS.

SOFTWARE

POS	T-POS (Terminal POS) software was developed by UMD to meet SkyBus's exact needs. This included tickets sales, integrated EFTPOS including split payments and refunds. Reports were custom written to match SkyBus's reporting requirements including reconciliation and management reporting.
Mobile	M-POS (Mobile POS) software was developed for the Casio IT-800 to validate tickets, which were barcode-scanned on entry to the bus. The system was developed to work both on-line and off-line.

SERVICES

Development	UMD's Software Development Team developed all software applications in-house
Ticket Server	The UMD Hosted Ticket Server was developed to issue and validate tickets to various point-of-service devices like POS terminals, On-Line sales and eventually Agents sales.
On-Line	UMD's on-line ticket sales system was developed and used by SkyBus to sell tickets on-line. Online ticket sales integrated with the Hosted Ticket Server and used the Cardgate.Net credit card payment gateway. http://skybus.umd.com.au/skybus/sales/
Payments	UMD's Cardgate service (http://www.cardgate.net) was used to integrate credit card payments facilities to online ticket sales.
Tickets	UMD organised the supply of all consumables covering tickets, ticket books and RFID vehicle and locations tags.
Engineering	Custom design and fabrication of metal ticket catchers and modification to vehicle dock mounting and power management.

The Results/Outcome:

UMD's SkyBus system went live on 12th April 2012. Change-over was coordinated at night to minimise any impact. In the 12 months since deployment, SkyBus has been selling and processing tickets reliably and continuously on the UMD system with no break to SkyBus's commercial operations in that time.

"UMD were a very good partner for Skybus to work with in developing and implementing a new system. They were never fazed by our custom requirements. Their experience in hardware, software, and payment systems enabled them to provide an integrated solution. After the initial implementation, they have continued to work with us to refine the functionality and reliability."

Simon Cowen
Managing Director
Skybus