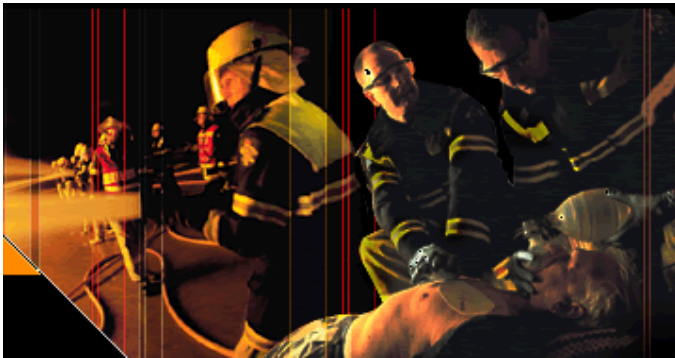# RFID Based Total Apparel Management System
MFB (Metropolitan Fire Brigade)

The Customer:

The Metropolitan Fire Brigade (MFB) (www.mfb.vic.gov.au) is a community safety organisation committed to providing world-class protection from fire and other emergencies in the greater city of Melbourne.

MFB firefighters work closely with diverse communities and identified at risk groups of all ages, to promote community safety and coordinate emergency prevention and preparedness activities.

The MFB has consistently reported some of the fastest emergency response times and achieved the highest percentage of fire containment to room of origin among all other fire services in the nation. MFB firefighters also respond to specific medical emergencies under the Emergency Medical Response, First Responder program.

The MFB has over 1,600 career firefighters who provide community protection, education services and emergency response from 47 fire stations and specialist departments located throughout the city.

The Requirement:

MFB's uniforms are supplied and managed by the Australian owned *Stewart & Heaton Clothing Company* (SHCC) (www.shcc.com.au). Since its formation 1991, SHCC has grown to become one of Australia's leading Protective Apparel and Apparel Service suppliers.

SHCC's focus is on two core businesses:

- Specialist Apparel for specialist end use applications
- Total Apparel Management (TAM)

It has developed considerable expertise in flame retardant fabrics and garments and has a major position in the fire services sector across Australia. Its commitment to local support and innovative e-commerce solutions has seen its TAM operations expand dramatically.

To enhance its market position, SHCC wanted to incorporate leading edge RFID tracking technology into its products, with its first customer being the MFB. SHCC needed a system to manage, track and report on the complete life cycle of MFB garments and to integrate this into its existing management system.

Unique Micro Design Pty Ltd   (A.B.N. 29-007-419-490)
200 Wellington Road, Clayton VIC 3168 Australia
www.umd.com.au

Tel: +61-3-9582-7000
Fax: +61-3-9582-7001
sales@umd.com.au

DOC-PS-MFB
Issue 1 – 04/08

This includes:

- A "Cradle to Grave" asset management solution
- The issuing of new uniforms including spares pools (incorporating RFID tags)
- The management and issue of uniforms to Officers
- A cleaning & repair process of uniforms & decontamination
- Officer reporting of service needs
- Complete reporting of all events and transactions
- The management of uniform returns and dispositions, including asset depreciation based on "life points", which takes into consideration process applied to asset (eg. Type of cleaning)

The Solution:

The Unique Micro Design (UMD) solution involved the development and supply of an RFID based tracking and management system based on the UMD-Edge™ Edgeware Application Development Platform. The solution consisted of:

Hardware

- High Frequency (HF) 13.56MHz ISO15693 compliant RFID laundry tags for insertion into apparel and uniforms.
- HF RFID Hand Readers with USB interfaces for tag reading, which are used at all reading points within the laundry process
- Industrial panel mount computer with touch screen interface for the laundry shop floor
- Mobile asset verifier based on GPRS based PDA with integrated RFID Reader

Software

- **UMD-Edge™**: Edgeware Application Development Platform. This is an Information and Communications Technology (ICT) development system based on a range of platforms and methodologies, which when combined with UMD's professional services, enables the rapid design, development and deployment of "edgeware" customer specific applications. It is particularly suited to managing devices at the edge of the enterprise such as intelligent sensor networks, RFID, barcode readers, actuators, sensors, interfaces and human interface terminals. **UMD-Edge™** is based on next generation message management software and service oriented architecture (SOA) which moves data capture functionality from enterprise systems to locally based network devices.

Services

- Professional services – to customise UMD-Edge to specific needs
- Installation of equipment
- Hosting the UMD-Edge™ based apparel management software for access by MFB and SHCC over the internet
- Support and maintenance

The Outcomes

The UMD-Edge web based interface enables rapid deployment and easy use of the system with minimal training. IT investment by MFB and SHCC was kept to a minimum as UMD-Edge was provisioned as a hosted service and integrated into SHCC existing Navision ERP system. This allowed SHCC to deliver on their promise to MFB to supply Total Apparel Management.

"The solution represented a significant rise in available data to the customer, which allows for timely & predictive decision making by both us and our Customer"
Sean Underwood
Inventory & Systems Manager - Stewart & Heaton Clothing Co Pty Ltd

Unique Micro Design Pty Ltd (A.B.N. 29-007-419-490) *Tel: +61-3-9582-7000*
200 Wellington Road, Clayton VIC 3168 Australia *Fax: +61-3-9582-7001*
www.umd.com.au *sales@umd.com.au*

DOC-PS-MFB *Issue 1 – 04/08*