

# Mobile and Wireless Technology in Fire Sector

## Overview

Increasingly Fire Services are needing to enhance their information systems to accommodate the requirements of different and updated legislation. For example, fire services need to be supporting the need for risk information to be available at the scene of incidents to aid officers in their decision making process. This information could be anything from chemical treatment data to weather conditions, site plans and increasingly for access to Intranet servers containing common brigade documents such as standing orders and incident reports.

The adoption of mobile applications and wireless technology is providing a powerful solution to remote fire workers. By implementing real-time data access it is allowing instant, up-to-date information and improving productivity throughout the fire organisation by improving communications.

Now more and more fire services are deploying wireless and mobile technology integration including seamless roaming capabilities as part of their long term strategy, to ensure quality and continuity of customer care at lower costs.

## Facing the Challenge

One positive move in creating and maintaining excellence in quality of service is by adopting Seamless Roaming as part of the mobile data strategy.

New technologies such as Seamless Roaming, and new applications of existing technologies, such as GPRS, are being used in the search for operational efficiency to achieve mobile data from any location. New standards such as WiFi will help facilitate access to and the sharing of data for employees anywhere within the organisation, and prove to be a vital tool in all business objectives.

## The Technology

Brand's Apollo Solution, matured over 14 years of successful deployment, is making mobile data a reality for business-critical data applications using Seamless Roaming for organisations across the world. Providing a secure connection for the mobile user whilst travelling from location to location, it removes the uncertainty of using a wireless network to transfer vital information by transparently integrating GSM, GPRS, Tetra and WiFi networking with LAN environments, both within the enterprise, and in the field and provides automatic recovery from dropped connections without repeating a data transaction and assures that data is never lost, corrupted or compromised.

Brand's 'Seamless Roaming' offers mobile users the added benefits of high compression levels, fast packet loss recovery and dynamic switching between 802.11b, GPRS or other bearer networks depending on availability during the same transaction. The solution also has the capacity to aggregate bandwidth from

different public carriers, or dissimilar communication bearer types.

Another major concern for fire organisations would be the security of information and network security. Brand provides significant protection to the network and data by using authentication (AES Advanced Encryption Standard—3DES replacement) and encryption security which complies with all the standards.

## Practical Solutions

### The Fire Appliance

The Fire Appliance is attending an incident in the local vicinity. By using a touch-screen device housed in the dashboard, it connects to a HQ LAN via GRPS, the fire crew can access the building records and study them in real time whilst on route to the incident. The fire crew notices that the building contains dangerous chemicals and can put special measures in place before reaching the scene. The information helps the crew prepare for the incident - saving valuable time and resource.

The whole mobile data experience has made the fire service more responsive to critical information and actions them in a more effective and efficient manner.

### Fire Officer

An Fire Officer is working within the Fire HQ. Using a tablet PC and the internal fire service WiFi technology. He is then called urgently to attend a incident. Seamlessly switching over to GPRS whilst in transit to incident, he can instantly read site plans of the building and records on the way and access the situation before he arrives. On arrival he updates the records using the assessment made and changes certain information and this is instantly sent back to head office with immediate update on the system.

By being able to access data whilst on the move, the fire officer is able to provide a far more efficient and faster service.

## Summary

Seamless Roaming represents an important step towards a new way of working within the fire service. Both the service and workforce benefit from the implementation of mobile technologies; as it makes the working process a more effective and efficient one. In addition, customer care is dramatically improved by information being available when and where the service is being carried out and insuring records are accurately updated.

Brand's solutions are deployed in many organisations across the world and specialises in implementing mission-critical wireless strategies. Brand's 'Apollo' solutions make mobile data a reality using session management. It removes the uncertainty of using a wireless network to transfer vital information and ensures compatibility with almost all data devices and networks resulting in a future-proofed investment for any fire organisation, allowing access to all IP-based applications from the Headquarters or in the field.