

# Telemetry

## Fired up by wireless

*Imagine a world where vehicles report themselves as stolen and tell the police where they can be retrieved. Imagine a world where vending machines are able to adjust pricing and product selections according to changes in the weather, the time of day, special events or other conditions.*

*Imagine a world where mundane applications, such as monitoring gas pipelines or electricity grids are very profitable.*

*These are all examples of wireless solutions that are running on Mobitex today. Many companies have already implemented wireless communication in their business with impressive results. When will your business join in and help to shape the new wireless world?*

### **The challenge**

The Metropolitan Fire and Emergency Service in Melbourne Australia was looking for a new system to replace the old, which no longer met the requirements in terms of reliability and cost. Furthermore, the existing

This fire monitoring system is an excellent application for Mobitex and one that would be very successful in other markets as well

equipment required costly copper landlines for transmission of alarm signals. What they wanted were faster response times (15 seconds as a maximum), guaranteed delivery and higher efficiency to a lower cost. The board decided to outsource its fire monitoring functions and turned to Tyco, the world-leading supplier in the fire and security services segment.



### **The solution**

Tyco use wireless data technology to provide fire-monitoring services for commercial, residential and industrial premises. They selected the Australian Mobitex network for the operation of its system.

Tyco uses an application called Centaur ASE, which connects a building's fire system to the Tyco monitoring System. Alarm and fault signals generated by fire panels in the alarm system are thus transferred wirelessly to Tyco, with alarm signals automatically forwarded to dispatch fire service vehicles. Fault signals, on the other hand, immediately alert Tyco staff in the customer care center of potential problems at the site. False alarms are also trapped by Tyco and managed according to the building owner's instructions.

The application reduces fire alarm monitoring costs by eliminating the expensive fixed line currently leased by building owners. One Centaur ASE unit can monitor up to six separate fire alarm systems at one site. With Mobitex, two-way monitoring data can be transmitted cost-effectively through an error-free system. This guarantee that the Fire Monitoring Customer Cares Centre always gets instant and accurate information to



keep people safe. More than 8000 fire panels are now connected to the network making Tyco the largest Mobitex user in the Australia.

#### The benefits

- **Reduced monitoring costs** – Tyco's solution reduces monitoring costs by eliminating the expensive fixed line currently leased by building owners. The amount saved depends on the length of the line, but for most customers the savings range from USD 100 to USD 1250 per year.
- **Reduction in false alarm charges** – False alarms to the Fire Service are reduced, because faults are not automatically forwarded. Instead, these signals are trapped by Tyco and managed according to the building owner's instructions.
- **Multiple system monitoring** – One Centaur ASE unit can monitor up to six separate fire alarm systems at one site.
- **No data corruption** – ensured by error checking and recovery algorithms used in the Mobitex network.
- **Fast response times** – normally only about five seconds and charges are based on the number of packets sent and do not increase with distance.
- **Guaranteed instant and accurate information** – effective transmission of two-way monitoring data through an error-free system to the Fire Monitoring Customer Care Centre.
- **Extremely high reliability** – Tyco just recently measured its availability to 99.98 %.

#### Why Mobitex?

As every second is vital with a fire monitoring application and the system works on event initiated transmissions,

call establishment times are critical. Tyco chose Mobitex as the packet-switched nature of the Mobitex network is ideal for this type of panel monitoring application. In contrast to circuit-switched technologies Mobitex has virtually instantaneous set up and does not require an end-to-end connection to be established. Packet switching also ensures a reliable and secure communications channel and lower costs for telemetry applications compared with other network technologies, since traffic costs are not affected by time or distance. In addition, the group broadcast function in Mobitex allows a host to poll fixed telemetry terminals cost-effectively and instantaneously.

Mobitex was selected for its high availability, performance quality and reliability with response times of only 5 seconds. Tyco just recently measured the availability in the Mobitex network, today operated by its subsidiary ADT Wireless Pty Ltd, to 99.98 %.

The Mobitex roaming feature, which allows the radio modem to automatically choose the most appropriate channel and base station in the area, ensures that maximum signal strength is always optimized. In addition, error checking and recovery algorithms used in the Mobitex network ensure that there is no data corruption.

With TYCO's solution, two-way monitoring data is transmitted cost-effectively through an error-free system

#### Facts about Mobitex

Mobitex from Ericsson is an open and international standard for wireless packet-data communications. With more than 30 networks in operation on six continents, Mobitex is the most widespread dedicated wireless data technology in the world.

Based on state-of-the-art packet switching and routing technology from Ericsson, Mobitex offers the most reliable and robust wireless data technology available today, delivering industry-leading performance in terms of capacity, connectivity and cost-efficiency.

Over the past three years, the number of Mobitex subscribers around the world has grown sevenfold, and the number of Mobitex networks have increased by ten. Today there are more than hundreds of applications available to meet every customer need.

*This success story is intended to provide inspiration and to give you an idea of how innovative services and solutions are enabled by Mobitex.*