

IDC's wireless tracking/paging system brings greater efficiency, accountability & monitoring to healthcare environments

Modern healthcare systems require up-to-date information at the touch of a button. This is exactly what IDC is delivering with its ZigBee™ wireless mesh products. Providing true system- on- a- chip solutions, with the benefits of built-in positional engines, small size and extremely low power consumption, the ZigBee products provide a simple cable-less network for interactive paging, tracking of patients and assets, barcoding of movable assets, nurse station call and alarm systems, security tagging, critical temperature monitoring of vaccines , blood and drugs, and emergency roll calls.

IDC's Zigbee™ wireless products bring greater efficiency, accountability and monitoring to any healthcare environment- hospital, clinic and surgery - providing end-to-end visibility of operations at relatively low cost. They cater for applications across a broad range from single sites to multi-site locations employing enterprise- wide client/ server architectures. The technology offers bi-directional message routing between remote access points and centralised IT facilities; and it is designed to operate in electrically noisy industrial environments using low cost, low power, robust networks.

Central to IDC's medical range of ZigBee products are two interactive tracker devices. Designed for operation with IDC IEEE 802.15.4 wireless gateways, the compact trackers use industry-leading CC2420 RF transceivers; they also integrate positional location engines, internal buzzers, temperature/humidity sensors, and small electronic accelerometers, which measure travel in all three directions. Importantly, the accelerometer also handles tilt, for patient fall applications, and 'man down' emergencies. To ensure the fastest response in these urgent situations, IDC can program the ZigBee node to send a message as soon as it detects a fall.

The trackers are convenient hand- held devices integrating from 1 to 6 push buttons. These are user-defined for selective requirements. For example, one keypad could have buttons for calling, senior nursing staff, another for doctors, a third for security, a fourth for maintenance, a fifth for a general alarm, and so on.more...

The trackers can also be used in conjunction with IDC's bar coding system to ensure that the location of crucial medical equipment is known at all times, helping to ensure its availability for usage, and to protect it against pilferage. The same technology can also be used to keep track of mobile assets such as wheelchairs, which can disappear in pressurised periods of heavy out patient usage. Subsequently, all of this tracker data can be fed into IDC's site- wide tracking system for data analysis.

Designed on a standard server/client architecture, the site wide tracking system integrates a data base, graphical user interface, and remote access via a web portal using a standard internet connection, which is password protected. The database holds a history of all tracker activity in real time; this can be interrogated to provide current or historical log data, statistics or management reports. In addition, data can be exported to other IT systems using standard formats including ODBC, XML or flat files. IDC are well placed in this respect, having extensive project experience in providing client/server systems for large corporate organisations, and providing multiple client workstations and Oracle/SQL databases at multinational sites.

The system can be configured via password protection, by entering details of each site location, user details and tracker details. Each tracker user is assigned the unique tracker serial number, which is electronically embedded within each tracking device. The unique number, together with contact details, is entered on the Personnel page of the tracking software on a centralised PC. This page also provides details of current location and personnel activity history. Users can be added or deleted from the system or reassigned new trackers.

IDC supports its ZigBee medical range with complementary software applications, including "over- the- air" programming, data logging and remote control, in addition to positional tracking. IDC also offers the ability to design bespoke hardware and software solutions based on existing site architectures. Importantly for users of the ZigBee range, IDC are not reliant on third- party software providers; hardware, application firmware, PC- based software and server applications are all designed in-house by IDC software engineers at the company's headquarters in Derby.more...

About ZigBee™ ZigBee is a low-cost, low-power, wireless mesh networking standard, based upon the IEEE 802.15.4 -

2006 standard for personal area networks (WPAN). The technology is intended to be simpler and cheaper than other WPANs such as Bluetooth. This cost advantage allows ZigBee to be widely deployed in wireless control, monitoring and tracking applications, where its low power-usage allows longer life with smaller batteries, and mesh networking provides higher reliability and longer range.

IDC Ltd Intelligent Distributed Controls (IDC Ltd) is based in Derby. The company has a highly skilled team of dedicated hardware and software design, development and application engineers. These personnel have specialist application knowledge of control systems applied to logistics, warehouse distribution and manufacturing. This applications experience has IDC enabled to develop key skills in real time control, RFID and wireless technology, and to develop niche products for these industries and related OEMs. IDC's customer base includes Toyota, Toys R Us, ASDA George, Smiths Aerospace, Astra Zeneca and Vestas Wind Systems A/S

..... Ends

For further information contact: Peter Hadley, IDC Ltd, Keynes House, Chester Park, Alfreton Road, Derby. DE21 4AS.
Tel: +44 (0) 1332 604 030 Fax: +44 (0) 1332 604 031. E-mail: sales@idc.gb.com Website: www.Zig-Bee.co.uk
