


[Previous Issues](#)
[Front Page](#) > [News Analysis](#) > [Story](#)
[Print this Page](#) | [Email this page](#)

CURRENT ISSUE

- [INDIA NEWS](#)
- [NEWS ANALYSIS](#)
- [STOCK FILE](#)
- [OPINION](#)
- [INDIA TRENDS](#)
- [FOCUS](#)
- [E-BUSINESS](#)
- [COMPANY WATCH](#)
- [TECHSPACE](#)
- [TECHNOLOGY](#)
- [SECURE SPACE](#)
- [PRODUCT](#)

COLUMNS

- [TECH FORUM](#)
- [THE C# COLUMN](#)
- [BETWEEN THE BYTES](#)
- [TECHNOLOGY](#)

SPECIALS <NEW>

- [Intelligent Network](#)
- [JobsDB](#)
- [MINDPRINTS](#)
- [HMA BANKBIZ](#)

EC SERVICES

- [ARCHIVES/SEARCH](#)
- [IT APPOINTMENTS](#)
- [Openings At Jobstreet.com](#)

[JobStreet.com](#)

- [WRITE TO US](#)
- [SUBSCRIBE/RENEW](#)
- [CUSTOMER SERVICE](#)
- [ADVERTISE](#)
- [ABOUT US](#)

Network Sites

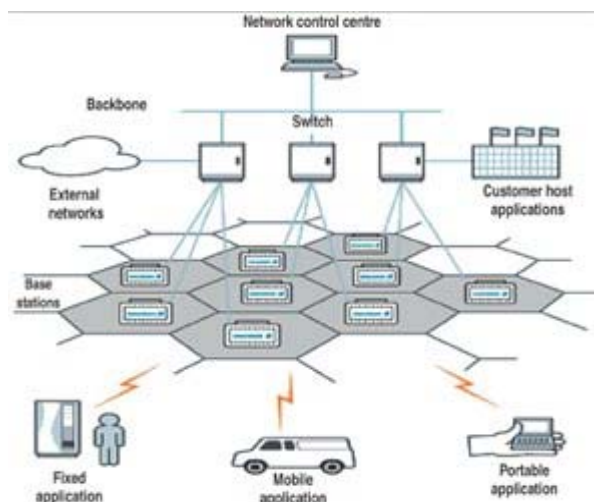
- [IT People](#)
- [Network Magazine](#)
- [Business Traveller](#)
- [Exp. Hotelier & Caterer](#)
- [Exp. Travel & Tourism](#)
- [Exp. Pharma Pulse](#)
- [Exp. Healthcare Mgmt.](#)
- [Express Textile](#)

Group Sites

- [ExpressIndia](#)
- [Indian Express](#)
- [Financial Express](#)

Mobitex to power mobile workforce in India

Mobitex is a new wireless data-access solution for organisations where people need to access data while on the move. Rahul Neel Mani reports



Mobile workers need a sturdy and reliable method of communication, especially if they're fire fighters, policemen or army personnel. Due to certain reasons, the options available till now were not so reliable due to their inherent nature. GSM is a public network-based service, and thus cannot be dedicated to one company or department. Two-way radio systems have some disadvantages like limited range, lack of crystal-clear clarity, and lack of data application support. There was thus a compelling need for a mobile technology that could both provide a reliable connection and support crucial

applications that a mobile worker would want while on the move.

One solution that meets that need is Mobitex from Ericsson, one of the world leaders in mobile technology, media and networks. Mobitex, an advanced wireless data technology, is actually Ericsson's only technology dedicated to wireless data. It is based on leading international and open standards for dedicated wireless data for professional users. It offers immediately usable solutions and services that deliver real value.

Mobitex has a number of key advantages over other technologies. It provides a highly secure environment, fast data delivery with round-trip message times of just seconds, the highest levels of reliability, the longest battery life in the wireless industry, true always-on push functionality, and extensive, seamless coverage.

Says Eric Wikstrom, area manager, new sales, Ericsson India, "Mobitex embodies all the company's expertise in this area and is constantly undergoing enhancements to keep it at the leading edge. Today, there are more than 30 public and private networks providing coverage on six continents." Company sources inform that more than 400 of the Fortune 1000 companies use Mobitex in their businesses. "Over the past three years Mobitex has gained more users than any other dedicated wireless data service in the world, and in the process has doubled its subscriber base and quadrupled its data traffic," says Wikstrom.

Mobitex is different from its closest counterparts. It uses narrowband radio technology for wireless data communication, employs packet switching to achieve maximum spectrum efficiency, and is a dedicated, data-only network based on an open and international standard. Ericsson is the sole supplier of Mobitex network hardware and software, but terminal equipment and applications are available from dozens of manufacturers, including both large multinational suppliers and smaller local manufacturers.

The system is designed to meet the requirements of business-critical applications, and

gives people and machines access to information when and where it is needed. It provides a competitive edge to companies as well as mobile professionals by offering the most reliable and robust wireless data technology available today. "As a result, Mobitex has been certified for use by police and rescue services in many countries, and two major credit card companies have approved Mobitex credit card applications as a secure method of payment and recommend it to their members," says Wikstrom. It is most useful when fast response times are required and data exchanges are short but frequent or intermittent, making it ideal for interactive applications such as electronic funds transfer, database lookups and dispatch, and automatic vehicle location.

The network

Mobitex networks consist of only a few components: the Mobitex base station, the MX switch, and the network control centre (NCC). These are small units that are easy to locate and install.

The basic functionality for this network is provided by a number of radio base stations and one or more switches. "Each base station, no larger than a briefcase, services a single radio cell which typically has a diameter of 20 to 30 kilometres. Together, the base stations provide an area of coverage and determine the capacity of the network," says Wikstrom. The system operates on the 400, 800 and 900 MHz frequency bands. The second most important part is the Mobitex switch. A Mobitex network typically contains several switches that are organised in a hierarchy of local and regional switches, all of which are connected by fixed links.

The local switch routes traffic to and from base stations and provides connections between wireless devices and fixed hosts. Local switches also provide important gateways to other networks. In the standard network configuration, there is an X.25 port implemented directly in the local switch. The entire network is supervised and managed from the NCC, which handles all operations and maintenance tasks, including network configuration, alarm handling, subscriber administration and billing information. Individual base stations and other network components can be reconfigured from the NCC, thus minimising the need for costly and time-consuming site visits.

"This simple and highly modular architecture makes network management extremely efficient and flexible. Mobitex networks can be configured in many different ways, from a large public nationwide network to a small, privately-owned network serving a single region or company," explains Wikstrom.

Business models

"Procurement trends and business models vary widely, from complete ownership and operation of the network to virtual private networks implemented in public networks," reveals

Wikstrom. Some organisations also rely on network sharing, meaning that several organisations own and operate a network jointly. "Whether Mobitex is made available as a public service provided by a national operator, or whether through a private network, it will remain a technology that can be matched to a wide range of requirements."

Indian market

India is still a new market for Mobitex, which has a little over a million users worldwide. "The launch in India has been preceded by comprehensive market studies that indicate substantial potential for the kind of services in which Mobitex excels," says Wikstrom. Because of its flexible and scalable nature, Mobitex networks are deployed in diverse areas, from small private operators (such as a bus company owning the network and using it for its core business) to nationwide networks offering wireless connections to professional users working in the field. Common to all users is their specific need for a reliable communication channel. Absolute reliability,

guaranteed quality of service, instant access, always-on facility and seamless roaming capabilities are hallmarks of the Mobitex network. "All professional users in need of a high-quality communication channel will benefit from the introduction of Mobitex in India," declares Wikstrom.

It is a cost-effective technology for a number of applications. It is spectrum-efficient, its architecture is flexible and robust, and the cost of setting up a network depends on many factors such as capacity, topology and whether or not both indoor and outdoor coverage is required.

Ericsson needs to open new market segments and create new business opportunities to make Mobitex a success in a place like India where volumes could be very high. Also, both the system equipment and network architecture need to be enhanced to ensure that it stays competitive in the future.

The success that Mobitex is now enjoying around the globe is the result of collaborative efforts in which many parties have worked hard to grow the market and to deliver true value to customers. But whether or not Indian operators and enterprises will fully support this initiative is a question still to be answered. "Aware of the situation, Ericsson has addressed this issue by offering end-to-end solutions support to companies wanting to develop and create solutions for Mobitex," says Wikstrom. The Mobitex interface specification, and radio modems and development tools available to device manufacturers and solutions providers, facilitate the introduction of new Mobitex products. As of now, application providers, system integrators, end-users and potential telecom operators in India have already shown great interest in this versatile technology.

Benefits of Mobitex technology

Office mobility

Because it is packet-switched, it is always available, instantly accessible and devices are always online and ready to receive data or send notifications. There are no time-consuming call set-up or data activation procedures, and there are never any busy signals. Response times are short—typically 3-9 seconds.

Workforce management

These systems allow mobile workers to produce and print invoices at the customer site, download technical diagrams, request online help and perform other time-critical activities, all of which result in improved customer service. Marketing, sales or operations management can analyse the delivery processes, monitor order entry and delivery progress, track product returns, manage inventory, and provide up-to-the-minute marketing offers with ease and efficiency throughout the business day—whenever the analysis is most useful.

Transport and logistics

Vehicles capture and transmit a constant stream of real-time data on driver performance, routes taken and hours worked. Companies can use the data to reduce mileage, improve fuel economy and boost productivity across the organisation. When they know what their fleet is doing hour-by-hour, they can reduce delivery turnarounds, match customer time windows, improve equipment usage, eliminate aborted deliveries, and even remotely monitor time-sensitive loads.

Public transport

An overall traffic management system built on real-time database access gives traffic controllers full contact with all parts of the system. When drivers are equipped with Mobitex terminals, traffic controllers are able to send written messages from their computers to each vehicle, providing information about delays and traffic jams, for example.

Police and fire services

Mobitex can be used by police forces for a variety of applications, including vehicle dispatch, status messaging and real-time access to central databases of criminal records. For organisations already using voice over radio, data communication can complement and enhance their services and provide completely new methods for making better use of resources, thereby increasing efficiency.

rahul@expresscomputeronline.com

[<Back to top>](#)



INDIAN
EXPRESS
GROUP

© Copyright 2003: Indian Express Group (Mumbai, India). All rights reserved throughout the world. This entire site is compiled in Mumbai by The Business Publications Division of the Indian Express Group of Newspapers.

Please contact our [Webmaster](#) for any queries on this site.