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Mobitex for municipals - simple solutions for complex societies

p.10

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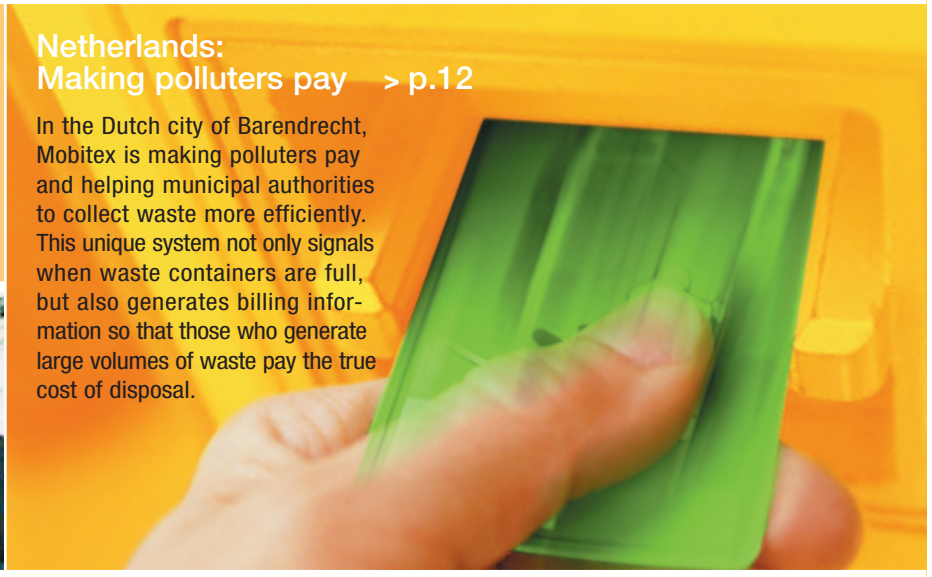

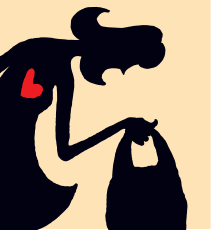

Good news for the industry

Ingrid Wallgren, Editor.

Dear Readers,

As always, the Mobitex industry is dynamic and growing. For this issue, we are tremendously pleased to announce some exciting developments that will forever change the Mobitex industry. The former Ericsson Mobitex division is now an independent company. We also now see a revitalized Mobitex Association. This completely changes the dynamics of the industry and will allow Mobitex to strengthen its position as the premier wireless data technology for demanding professionals.

As we emphasize in this issue, the newly established company Mobitex Technology AB has acquired all Mobitex operations from Ericsson. Hailed by customers as a very welcome change, the creation of an independent company focused exclusively on Mobitex technology will open new markets and propel Mobitex to a new position.

Also important is the formation of the new Mobitex Association, which will revitalize the already dynamic Mobitex industry. By expanding its membership to include not just operators, but all parties with a stake in the Mobitex industry, the Mobitex Association will create an energetic platform for networking and inject new life into our community.

For this issue, we chose an obvious theme: Simple solutions for a complex society. Whether it is collecting rubbish, cleaning the streets or policing a community, Mobitex provides a cost-effective solution for performing simple tasks differently and in a manner that improves service while reducing complexity.

Delivering services cost-efficiently is a constant challenge, not only for municipal authorities, but also most large organizations. If the service being provided involves a mobile workforce or equipment installed in many locations, Mobitex provides a simple and robust solution.

The key benefit in these solutions is coordination. Being able to track all mobile units at all times and collect data from remote locations about services being delivered in the field not only simplifies administration and control. It adds a new dimension that allows services to be delivered in a more timely and appropriate manner. These are what we call simple solutions for a complex society.

This issue also brings news on activities going on around the world. A new market for Mobitex is about to open in India, the world's second most populous country. As a newcomer to the Mobitex industry, an Australian supplier has won modem orders for more than a million dollars. In Hong Kong, a new type of application is being launched that promises to be lucrative for both operators and players. In North America, RIM is rolling out a new Mobitex handheld that uses the Java platform and Cingular is helping customers to monitor network performance.

These are exciting times. We hope that you will attend the Mobitex conference in September to get an update on everything that is going on in the industry. <

LINKS

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RAM Mobile Data, Netherlands: www.ram.nl
TDL, Hong Kong: www.mango.cc
Transcomm BT redcare, UK:
www.transcomm.uk.com.

Companies/organizations featured in this issue:

Mobitex Association: www.mobitex.org
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B&M Systemutveckling, Sweden: www.bmsystem.se
Viktoria Institute, Sweden: www.viktoria.se
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Mobitex gains independence

Andrew Fitton, CEO of Mobitex Technology AB

At last, Mobitex is breaking out of the Ericsson fold and beginning a new life in the independent company Mobitex Technology AB based in Gothenburg, Sweden. Finally, Mobitex will be marketed as a unique brand by a company that is exclusively focused on delivering industry leading wireless data solutions. With this change, Mobitex will be able to take a more prominent position in the wireless industry.

Mobitex Technology AB will be owned by an independent group of UK investors. Andrew Fitton, previously CEO of UK operator Transcomm Plc and former president of the Mobitex Association, leads the group and Sweden's largest banking group Handelsbanken backs the new company. The buyout comes as a natural step for both Ericsson and Mobitex. Ericsson is focusing on large telecom players operating worldwide, but future long-term growth for Mobitex will lie in dedicated networks for prioritized segments and in the development of existing networks. The time has now come, and a smooth transition to an independent company has taken place.

The break with Ericsson is also by no means total. On the contrary, Mobitex Technology AB's acquisition of all Mobitex operations includes a long-term strategic partnership agreement with Ericsson that regulates the transfer of intellectual property rights and patents and ensures that Ericsson will continue to manufacture and distribute Mobitex products on behalf of the new company. Mobitex customers can thus rest assured that it will be very much business as usual and that there will be long continuity in their relationships with the Mobitex organization in Gothenburg.

Strategic partners for new markets

"Naturally we will create new sales channels and expand our partnership program," says Andrew Fitton, president and CEO of Mobitex Technology AB. "Over the next 12 months, we expect to announce a number of strategic partnerships that will significantly expand the market for Mobitex. Sales through Ericsson market units will probably only take place during a transitional phase, except in developing markets where there are clear benefits for both parties.

"We will concentrate sales efforts on existing Mobitex customers and focus additional resources on a small number of clearly identified sales opportunities where the unique properties of Mobitex give it a clear advantage. Negotiations are currently in progress with a number of prospects. Clear opportunities also include any requests for tender in prioritized segments, such as emergency services, transport and M2M (machine-to-machine), where we know that Mobitex is the best solution for wireless data."

With his past experience, Fitton knows where these opportunities lie and has a proven track record in creating a successful wireless business. "Many Mobitex operators already deploy a number of machine-to-machine applications on their networks," notes Fitton. "This is an area of the telecommunications industry that is predicted to grow very fast over the coming years. Mobitex operators are extremely well positioned to win new business in this fast growing sector. In the industrial and government sectors, particularly in public safety and public transport, there is also a demand for reliable Mobitex solutions running on existing networks or as an enterprise-dedicated data network."

The Mobitex technology and products match these and other targeted market segments extremely well. As an independent company, Mobitex Technology will be more focused and more flexible and thus better able to serve existing and new customers on a long-term basis. Put simply, the new company will be able to leverage market opportunities that are unreachable for the telecom giants.

Customer offerings enhanced

The organization possesses expertise and experience in mobile data technology, applications and markets that are unparalleled in the industry. This capability has the potential to flourish within an independent company environment. What has been a successful and profitable business for many years can only grow stronger and bring Mobitex to new heights.

"Mobitex Technology is now a lean, flexible and very dynamic organization that is able to shape its own destiny," says Andrew Fitton. "Compared with the telecom giants, we are not a large company, but with over 30 networks in operation and such industry leaders as Cingular Wireless and British Telecom among our customers, we certainly cannot be regarded as a small player. On the contrary, as we announce new partnerships and open new markets, Mobitex Technology will be recognized as a very serious player in the wireless data market."

Response among existing customers has been overwhelmingly positive, with many expressing the view that the change was long overdue. Mobitex Technology AB has long-term contracts with key customers, and as a new company it will be more proactive and flexible in customer offering.

Product development intensified

The new owners believe strongly in the Mobitex product development strategy. "The product roadmap is actually improved," says Andrew Fitton. "We immediately put more emphasis on key projects, with the new network switch being a major priority. We have also authorized a new base station project that would not have been started previously. The development team is in a much better position now because the roadmap extends further into the future."

Andrew Fitton reveals that several important development projects remain on track for release as scheduled.

These include R9, a new system release that will reduce the number of switches required in a network and result in a flatter architecture. Also in the works are a new base station and the MSN node that will significantly reduce hardware costs.

"Naturally, increased effort will be required to ensure that we reduce manufacturing costs to increase competitiveness," continues Andrew Fitton. "We will also look at implementing requests from our customers for new functions and products. Not everything will happen overnight, but the profits that the business generates can now be used to fund Mobitex development exclusively."

Establish a global brand

With the founding of Mobitex Technology AB, the world's best and most cost-efficient narrowband wireless data technology now now becomes a global brand. This change will enable Mobitex to be established as a global brand and mark the start of a new era in which Mobitex will increasingly be regarded as a leading player in the wireless data industry.

"We are not interested in becoming a service-oriented business merely serving an existing customer base and scoring a few wins. Together with the newly revitalized Mobitex Association, Mobitex Technology AB will drive Mobitex to the position of prominence in the industry that it deserves," concludes Andrew Fitton. <

BT redcare gains M2M momentum with Transcomm acquisition

MOBILE BUSINESS NEWS

Demand for wireless technologies in the rapidly growing M2M market is set to soar over the next decade – and BT redcare has strengthened its position by acquiring the UK Transcomm Mobitex network, a key enabler in this sector. Transcomm's operations will in the future be managed as part of BT's redcare business. BT redcare is a very successful venture within BT's UK Retail arm, specializing in highly secure managed communications that provide an excellent complement to Transcomm.

"BT redcare is delighted to offer our customers access to the Mobitex network. We now control the best wireless solution for M2M applications, complementing our established, continuously monitored fixed-line network," says Bob Tuck a member of the senior management team responsible for redcare's overall portfolio.

M2M applications include most devices that can be monitored remotely, from fire and burglar alarms to vending machines, refrigerators, EPOS terminals and distribution fleets. With nearly 400,000 connections today, BT redcare already offers a compelling M2M data communications service, based mainly on its highly secure and reliable fixed-line network. The acquisition of Transcomm strengthens BT redcare's position as the leading UK service provider for M2M applications and enhances BT's M2M service offering by adding wireless capabilities. The combined business offers BT's brand, customer penetration and expertise in corporate solutions with Transcomm's Mobitex network, products, applications and distribution partnerships.

Strategic move

The rationale for this acquisition, and the reasons why Mobitex technology is so important to BT redcare's future plans, are reflected in the company's development and its strategy moving forward. BT redcare was established in 1985 as Telecom RED, providing a secure alarm transmission network using a derived channel technology. The technology enabled redcare to grow its business to cover more than 350,000 end users and 70 alarm receiving centers in the UK.

"In the mid-1990s, we saw a need to diversify the product range while retaining the core capabilities of secure transmission and rendering platforms," relates Bob Tuck.

"In 1999, we launched the Digital Service Platform, not only providing security connections over analog lines but also utilizing the 'D' channel of ISDN, with GSM SMS as backup for fixed-line services."

Delivering wireless opportunities

The company's markets also took on a new dimension as CCTV services using high capacity circuits for town center camera monitoring were introduced to the redcare portfolio. In 2003, redcare launched the DSP2 platform to further enhance M2M and rendering capabilities over multi-access technologies such as GPRS and, shortly, Mobitex. These developments led the redcare technology team to launch a strategic review of wireless technologies in 2003, with the aim of analyzing options for complementing the "always there" redcare fixed network as part of this process.

"After considering the pros and cons of a number of technologies (including USSD, GPRS, CDMA and 3G), the team concluded that the Transcomm Mobitex network offered the closest form of reliable, secure "always on" technology to complement the redcare offering," reveals Bob Tuck.

As a result, the company approached Transcomm to discuss an offer for the network. The acquisition was confirmed in March 2004.

"This combination catapults BT redcare further ahead of the competition and strengthens our position as the leading UK service provider for all M2M applications," concludes Jon Furnston, CEO of BT redcare. <

RIM Introduces Java-Based BlackBerry 5790

RIM is rolling out a new Mobitex handheld with the introduction of the BlackBerry 5790 Wireless Handheld this month. This new handheld offers the same look and feel as the successful BlackBerry 957 and adds the use of the open-source Java platform, a backlit keyboard and increased memory. The BlackBerry 5790 also includes easy-to-use features similar to the flagship product, such as a thumb-typing QWERTY keyboard and trackwheel, backlit screen and intuitive menu-driven interface.

In 1999, Research In Motion (RIM) launched the first BlackBerry Wireless Handhelds on the Mobitex network. Today, with over one million subscribers, BlackBerry is a standard for wireless connectivity to data and people and continues to be a powerful tool for solving a critical mobility issue: managing a constant flow of time-sensitive information and email while on the go.

Designed for mobile professionals who need to stay connected to important business information, the BlackBerry 5790 provides wireless access to email, browser, corporate data and organizer features from one handheld. Featuring integration with existing email accounts and unique "push-based" technology, BlackBerry remains "always-on" and connected to the Mobitex network, automatically delivering messages and data directly to the handheld without ever requiring the user to initiate a connection, dial or log into a server or download information.

BlackBerry provides a competitive advantage for the mobile workforce, putting critical resources in the palm of one's hand to improve customer service, collaboration with colleagues and productivity. BlackBerry users can open messages and attachments, access a variety of applications, and read, reply, delete and file messages. BlackBerry cradle-free wireless email and calendar synchronization helps users stay on top of their ever-growing inboxes and appointments while traveling. The BlackBerry 5790 maintains superior battery life – approximately one week -- further helping users stay mobile.

Since the original introduction of BlackBerry for Mobitex, RIM has extended BlackBerry to provide secure, "always on" access to other types of information beyond email. Customers in a number of vertical industries use BlackBerry with a variety of applications designed to access CRM data, remotely manage IT systems, dispatch information to field representatives and more.

The BlackBerry 5790 leverages Java 2 Micro Edition (J2ME), a standard development environment optimized for wireless devices that has been adopted as a standard in the wireless community for adding Java applications and expanding platforms. Introducing Java to the BlackBerry Wireless Handheld for the Mobitex network creates a greater opportunity for application development, giving in-house and independent software vendors (ISVs) virtually unlimited opportunity to customize and extend the capabilities of BlackBerry applications.

In addition, enterprises can extend other corporate applications to the BlackBerry 5790 with the BlackBerry Enterprise Server and BlackBerry Browser. Using the same secure, push technology that delivers email to the handheld, the BlackBerry Enterprise Server software provides end users wireless access to the Internet, intranet and corporate applications via the BlackBerry Browser.

"The BlackBerry platform appeals to a wide range of corporate developers and ISVs with its advanced support of crucial wireless data features including always-on operation, push-based services, end-to-end security and back-end integration," says Mark Guibert, Vice President of Corporate Marketing for Research In Motion. "From the beginning, RIM focused on building a robust, enterprise-grade platform that is optimized for wireless integration and performance. Introducing Java support significantly strengthened the extensibility and ROI appeal and is proving popular with developers, IT managers and end users alike."

BlackBerry continues to be the platform of choice among corporations and government organizations for its unique ability to extend the enterprise wirelessly, support open standards and offer advanced security. BlackBerry meets the needs of both end users and IT managers, keeping mobile professionals connected to valuable resources, and providing IT departments with secure, centralized management in a flexible system that tightly integrates with existing messaging platforms and corporate applications. <

Testing in a live network shows that the emergency call being dispatched to the ambulance will reach the vehicle in about 5 seconds.

Bondi Cars go live

The Mobile Data Radio System (MDRS) being deployed by Technisyst for the Government of New South Wales in Australia has now become operational in Sydney, where it is being used by officers from the city's Bondi ambulance district. Response from officers using the mobile data terminals has been very positive. "The terminals are very user-friendly and quick. The incident is on the screen before the caller hangs up," notes station officer Kevin Nutsford.

During the initial tendering process, workload patterns for the Sydney Division were overlaid on a map showing the predicted network coverage area. This allowed system designers to plan base station locations to reflect these workloads. As a result, 31 base stations are being deployed to provide the desired coverage.

Over the past six months, a government support unit has been conducting simulated and live testing of the MDRS network to ensure that the system is more than capable of delivering the performance stipulated in the service contract. During these trials, data was received in an average time of 7 seconds, and the network met the contracted standard of coverage in 99 percent of locations 99 percent of the time.

The MDRS will progressively be introduced during 2004 to all stations in Sydney and and the central coast as the network is rolled out. <

India next major market

After a successful road show covering five major cities, Mobitex is generating considerable attention in India. Mobitex Technology is in cooperation with Ericsson India giving priority to Mobitex in its marketing efforts and believes that there is considerable potential for the narrowband wireless data technology in the country.

After starting in New Dehli, the road show, which included business partners Tyco, CNI and Arya Omnitalk, traveled to Mumbai, Banglalore, Channai and Hyberbad. At each stop, the conference room was packed with representatives from Indian hardware and software companies, as well as potential Mobitex customers. Following presentations of Mobitex technology, participants were able to see live demonstrations of solutions specially selected for the Indian market.

"We are very excited about the new opportunities offered by Mobitex. Over the past three years, Mobitex has gained more users than any other dedicated wireless data service in the world, more than doubling its subscriber base and quadrupling data traffic," says Jan Campbell, Managing Director of Ericsson India Private, Ltd.
Public safety is one application area where there is already considerable activity. HCL Infinet, for example, is working with the Andhra Pradesh police on a Mobitex application for patrol officers, and there is similar interest from police and emergency services in several other parts of the country. Automatic meter reading (AMR) and alarm monitoring will be the first M2M applications to take off and Genus Overseas Electronics Ltd. has partnered to offer a Mobitex solution for the power industry that will include power-line monitoring and billing functions. Public transport and logistics are naturally other application areas with great potential.

"The Indian data and telecom industry is very advanced, and there are many companies offering solutions for specific customer segments in which Mobitex is an ideal technology. India may well be the next major Mobitex market, says Erik Wikström, Sales Manager India at Mobitex Technology. <

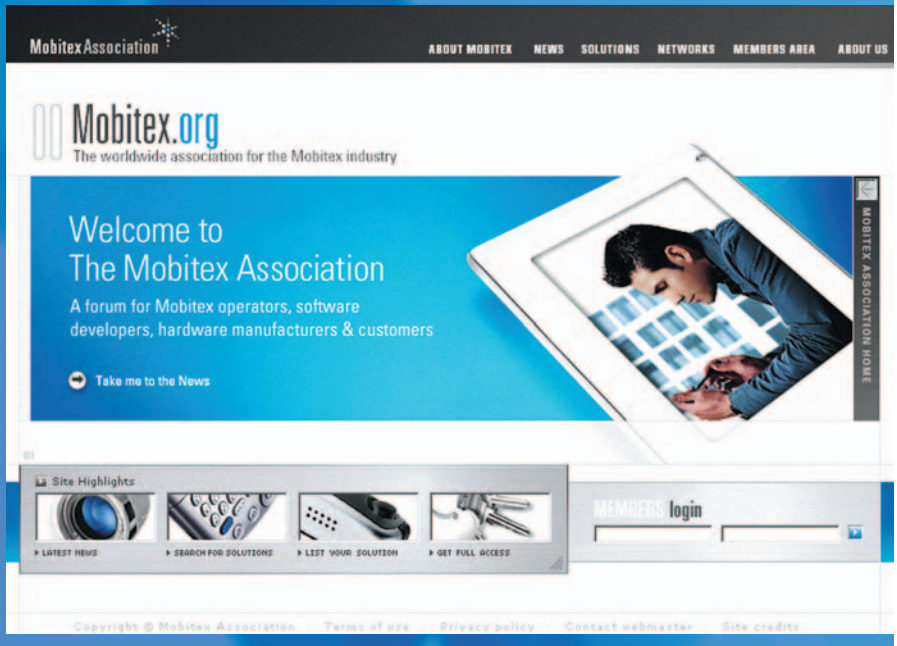
Mobitex Association Business and Networking Conference 20-22 September 2004 Gothenburg, Sweden

www.mobitex.org <

Global forum launched

Welcome to the new Mobitex community where the rallying cry is: "Narrowband is now!"

Gone is the former Mobitex Operators Association (MOA). Taking its place is a new, more open forum: the Mobitex Association (MA).



www.mobitex.org

What is new about the Mobitex Association?

Perhaps the first notable change is that the new Mobitex Association is intended to be a forum not only for Mobitex operators, but also for software developers, hardware manufacturers and customers. Full membership is now open to all, and the new organization is the worldwide forum for the Mobitex industry.

The Mobitex Association will take over many of the former MOA tasks. In particular, administration of the Mobitex Interface Specification (MIS) as an open standard will continue. The Technical Guidance Council (TGC) will continue to function within the new organization, and the Marketing Guidance Council has been revitalized.

Full information about the new association is available from the Mobitex website at www.mobitex.org, so please visit soon. The website has been completely redesigned. We are sure that you will find it exciting and informative, and we hope you will want to join us on the exciting journey ahead as Mobitex moves into new markets. Application for membership can be downloaded online. There is new information and a new organizational structure.

Mobitex veterans will find themselves at home. As the website proclaims: "Mobitex is still dedicated to data and developed from the start for professional users". Mobitex is still the clear leader in wireless data technology due to its outstanding reliability and consistent and optimal performance. With over 1.2 million professional business users, growth shows that Mobitex is the technology of choice in terms of reliability, cost, responsiveness and support. As newly elected chairman, Kevin Swann, proudly proclaims: "Narrowband is now, and it's set for the future!"

To encourage new members, the membership fee has been lowered significantly, while the benefits of membership have been greatly expanded. A full membership now costs just USD 1,750 per year and is open to all companies and individuals who have an interest in the Mobitex industry. Member benefits include access to mailing lists and to the information that is shared among members, exposure on the Mobitex website and opportunities to network and participate in the association's activities.

Membership of the Mobitex Association naturally requires a commitment to Mobitex and a willingness to share information. With the lower membership fee however, the investment is small, while the rewards are large. In addition to exposure, access to information and mailing lists and opportunities for networking, members are encouraged to suggest working programs on topics of importance to them. <

Revitalizing the Mobitex Industry

Charles Nelson, Kevin Swann and Folke Bergqvist.

Newly appointed as Chairman of the Mobitex Association, Kevin Swann is the Sales and Marketing Director at CML Microcircuits, where he has been working with wireless data products and systems for more than seven years.

What is your vision for the Mobitex Association?

My hope is that the Mobitex Association will be a community where people can network and collaborate to achieve mutual benefit while at the same time benefiting the Mobitex industry. With involvement from different categories of companies and people, the Mobitex Association can give new members more influence and bring a broader range of expertise to bear on the opportunities that lie ahead.

What are the most significant changes in the new organization?

One of the more significant changes is that the membership is now open to any company or person with an interest in the Mobitex industry and that the membership fee has been lowered to USD 1,750. We have deliberately set the membership fee so low as to be insignificant so that any company that is not willing to pay cannot be serious.

Another significant change is the new website, which reflects the image that we want to project. The new Mobitex Association will revitalize the Mobitex community and address a wider range of interests by expanding its membership. Perhaps most significant is that by expanding membership, we are also making it easier for these different interests to influence the organization's work. All members are encouraged to suggest working programs and to take initiatives to add new features or to conduct activities that will benefit the Mobitex community.

How has the response been so far?

The response has been very positive. We registered more than 5,000 visitors on the website last month, so there is certainly considerable interest. Many companies now see the benefits of membership, and we are signing up new members. As an example, the Australian modem manufacturer Wavenet recently joined and in just a few weeks received publicity on the website worth much more than the membership fee. As we go forward toward the Mobitex Conference in September, we expect membership to grow rapidly.

Within the organization, the response has been tremendous. We have held three board meetings thus far. All decisions from these meetings have been carried out, and everyone is getting behind the organization. The people involved are all very competent, and I feel confident that work on the councils will be accelerated.

What type of company should join the Mobitex Association?

Operators, hardware manufacturers and software vendors will naturally be members. Personally, I would like to see membership from users, for example, ambulance services, security services, vending machine operators and any other company that wants to know how to make the most of Mobitex. We would like to see more suppliers in all aspects of the business, including infrastructure. As a director of a semiconductor manufacturer, I would welcome other suppliers in the same area.

What is the structure of the new organization?

There is a three-member Board of Directors consisting of myself, as chairman, plus Charles Nelson from Cingular Interactive and Folke Bergqvist from Mobitex Technology. We also have a Technical Council and a Marketing Council, each headed by a single person. Wouter Levenbach from RAM Mobile Data Netherlands is the chairperson for the Technical Council and Ingrid Wallgren from Mobitex Technology AB is the chairperson for the Market Council. As much work as possible is carried out by e-mail and telephone. All work is voluntary. No one is paid or expensed.

The new organization includes officers from Mobitex Technology AB. Will the Mobitex Association remain an independent organization?

It is essential that the Mobitex Association must not be seen as a mouthpiece for any singular organization but as an independent industry association. For this reason, the Board of Directors has adopted a policy that no single company may have more than one representative on the board or any other body.

How does CML view your involvement in the Mobitex Association?

CML was founded in 1968 and has been involved in design, development, manufacturing and sales of semiconductors for narrowband data applications since 1983. Our chairman and board have been fully supportive of all Mobitex activities, and the company has made significant investments in Mobitex technology. Recently, we hired new staff and started a new division to, among other things, support the new Mobitex chip (CMX990) development.

Having said that, I wish to emphasize that CML is a semiconductor company and that we have no intention or desire to enter the modem business. Our involvement in the Mobitex Association in no way changes the focus of our business, which is to develop and market cost-efficient and high-performance semiconductors to the communications industry. <

Simple *solutions* for a complex society

“When demand for municipal services is growing Mobitex can empower a new way of working”

Today's society is increasingly dependent on services. Whether they are mundane services, such as street cleaning and rubbish collection, travel services for an increasingly mobile population or the technical support services required to support the many advanced products that seem to have become indispensable in our daily lives, services account for an increasing share of economic activity. At the same time, the cost of producing goods continues to decline.

This trend poses formidable challenges in both the public and private sectors. Put simply, service organizations must deliver better service more rapidly and more efficiently. For private enterprises that are able to charge for services based on the actual cost of delivering them, this may represent an opportunity. However, for municipal authorities that must satisfy public demand for services and in many cases are obligated by law to provide them, delivering better service using fewer resources often seems an impossible task.

Mobitex brings simplicity to the complex equation of delivering better service by making innovative use of proven technology. Basic services, such as street cleaning, parking administration, and rubbish collection, may remain the same, but wireless data allows them to be organized in a different way that reduces administration and makes service delivery more efficient, thus reducing costs.

Wireless connectivity adds value

Mobitex creates a simple solution because it provides wireless connectivity. Compared with most other wireless technologies, Mobitex is a relatively simple, well-proven and extremely cost-effective technology. There are many terminal and modem products available and many off-the-shelf applications that make it relatively easy to create solutions that deliver real value at low cost.

Stockholm Entreprenad uses an application called MobiWin QA for quality assurance in which vehicle tracking or AVL (automatic vehicle location) provides the core functionality. This is one of the basic building blocks in hundreds of applications used to improve the efficiency of municipal services around the world. Because the company is able to monitor the movements of its mobile units, quality can be assured and substantial sums of money saved. Municipal officials are able to log in on the company's website and verify that contracted services have been performed. The wireless data application also reduces distance traveled in performing services, thus saving on fuel cost, while its planning and monitoring functions also help Stockholm Entreprenad to avoid paying penalties for services not performed according to contract.

In the Netherlands, Mobitex is providing an equally simple yet ingenious solution for waste collection that helps the city of Barendrecht make those who generate large volumes of waste pay the true cost of disposal without penalizing other more environmentally conscious citizens who generate less waste. Although putting waste containers underground and equipping them with level sensors is clearly more expensive than using conventional containers above ground, the incremental cost of installing the Mobitex equipment for remote monitoring and data collection that provides the core functionality for this application is so small as to be insignificant. Yet the savings are considerable for the city through being able to plan routes and empty only those containers that are full.

Many deployment options

These are just two examples of how municipal authorities and service organizations can use wireless data to increase efficiency and improve service. Mobitex is already a proven performer for police, ambulance and rescue services where rapid response and secure communications are essential. When combined with AVL technology that tracks all vehicles and process- or event-driven dispatching, Mobitex becomes an extremely powerful tool for coordinating the response of mobile units and deploying resources to an incident scene quickly and efficiently.

An important advantage of the Mobitex system is that it is extremely scalable and can be deployed both as a small, private network serving a limited geographical area and as a large, nationwide network. In Australia, for example, the Queensland Ambulance Service has its own network, but users are able to roam into the national network, which provides extra capacity and additional channels for coordination in the case of a large-scale emergency.

In case after case, Mobitex provides a documented return on investment in such applications. The initial investment is low, compared with other technologies, not only because Mobitex itself is extremely cost-efficient, but also because there are literally hundreds of hardware and software products available for Mobitex.

Adding a new dimension

The benefits of wireless connectivity also become evident in a case such as community policing in the UK. The application developed by APD Communications for use by public authorities not only allows police, social and welfare officers to spend more time out on the streets where they are needed most. By interconnecting the islands of information that the various authorities possess about community residents and allowing this information to be shared in the field, this application enables a new concept of community policing.

Wireless connectivity thus creates a new dimension that does more than improve productivity among field organizations. By improving the quality of service provided by municipal authorities, a wireless data solution creates value that may be difficult to measure directly. There is no question, however, that such initiatives as community policing in the UK can provide tangible benefits in the form of improved quality of life and fewer disturbances in the community.

> "Municipal officials are able to log in and verify that contracted services have been performed"

As our case studies amply illustrate, the best solutions are not only simple but also innovative. At a time when demand for services is growing and municipal resources are increasingly strained, Mobitex can empower a new way of working that simplifies services delivery and increases efficiency. <

Making polluters pay

"Individuals are charged for the volume of waste that they generate"

Speeding up the waste management means better service for the community

In the Dutch city of Barendrecht, waste management has become more efficient and the city is cleaner, thanks to Mobitex. Together with business partners Diftar BV and Essent Millieu, Dutch Mobitex operator RAM Mobile Data has deployed an innovative yet simple solution that handles a variety of tasks from invoicing residents for waste disposal to routing the vehicles that collect the waste.

Waste disposal may not be the most glamorous application, but waste is a growing problem in today's society as people seem to generate more waste for each year that passes. Add to this growing concern for the environment, and it is not hard to understand why Dutch authorities are making polluters pay by charging individuals for the volume of waste that they generate.

Although the principle is both fair and simple, charging residents individually for the waste that they produce could easily become an administrative nightmare. Most municipalities therefore apply a more general pricing system whereby each household is charged a flat rate for waste disposal or pricing by volume or weight is determined for an entire building or a block of apartments. Dutch authorities, however, knew that they had to find a way to offset rapidly increasing costs for waste management.

Monitoring underground containers

RAM Mobile Data and its business partners already had most of the components required for an effective solution. In the densely populated Netherlands where space is at a premium, Diftar had installed waste containers in several cities that are located underground with only a small opening at street level. In the system supplied by Diftar, these waste stations are opened using a personal smart card containing billing and other information. The system also supports prepaid functionality and can be used to limit access to only those containers located in the user's neighborhood.

Each container location (at which there may be several containers) is served by a monitoring system that includes a single-board computer (SBC) and a radio modem for transmitting data over the Mobitex network. Billing information is passed on to the relevant authority but is also used to generate a database that can be accessed via the Internet. Information generated at the container location and transmitted over RAM Mobile Data's network also includes status information for each container indicating whether or not it is functioning properly and the level of waste that it contains.

Because each container can wirelessly report when it becomes full, routing of collection vehicles becomes extremely efficient. Only those containers that are full need to be serviced, and the waste disposal company knows exactly how much waste will be collected. The two-way data communication offered by Mobitex also allows faulty containers to be shut down remotely.

"This is not only an extremely cost-efficient system. Because the containers can be emptied before they become full, excess waste does not end up on the street beside the collection point, thus making the city cleaner and eliminating the manual handling that would otherwise be necessary," says Essent Milieu project manager Chrétien Thijssen.

Generating billing information

In the project, Diftar BV was responsible for the electronics and hardware, as well as the web-based interface that allows users to check billing information. RAM Mobile data supplies the wireless communication network and hosting as a WASP (Wireless Application Service Provider), while Essent Milieu contributed the billing solution.

"As a service provider, we primarily target the authorities responsible for waste management, including data registration, transmission, collection and processing prior to deposition," says Chrétien Thijssen. "We do not try to cover the entire chain ourselves, but instead employ trusted external partners. When wireless data communication is required in our projects, we rely on RAM Mobile Data and its reliable Mobitex network. With the Mobitex network, data transmission is always guaranteed, meaning that billing information is never lost. Residents can be confident that the invoices they receive will be 100-percent correct."

The result of this collaboration is the integrated waste management system, which according to Thijssen is not only extremely reliable, but also highly flexible. Essent Milieu is therefore now studying how this partnership can be expanded to offer more customers a similar system.

"Evaluation of the project is now being conducted by independent expertise. Our expectation is that waste management will be seen as a sector in which external suppliers can play a greater role by providing information in a shorter period of time. Speeding up the waste management chain means better service for the community. In this respect, wireless data communications will have an even more important role to play," concludes Chrétien Thijssen. <

Waste management on the web

The waste management system implemented by RAM Mobile Data and its business partners Diftar and Essent Milieu is actually a hosted application that the Dutch Mobitex operator could offer as a service to many municipalities. The system pioneered in Barendrecht could be deployed very quickly in other cities using the same type of containers.

As noted in the article, the new system is now being evaluated by independent experts. However, the benefits should be obvious. Not only is waste management speeded up and collection made much more efficient. The municipality is able to charge individuals for the volume of waste that they produce, thus ensuring that polluters will pay the full cost, while more environmentally aware residents who produce less waste will also be charged less.

The added cost of introducing wireless data and an individual billing system will naturally vary depending on the infrastructure and administrative systems already in place. Experience from this type of Mobitex applications, however, indicates that pay-back time is very short and typically 12 months or less.

Because this container will signal when it is full, there is no risk that this bag will be left on the street.

> It takes only seconds to verify that the sewer was cleared 45 minutes before Eva fell

On the way to work on her bike, Eva hits a wet spot, and before she can slow down, the bike slides out from under her and she hits the pavement. Luckily for Eva, she was wearing a helmet and cycling on a bike path, not in traffic, so she is not hurt badly. The bad news, however, is that she has fractured a bone in her arm and will not be able to work at her job as a nurse in a Stockholm hospital for several weeks.

This accident, like many others, becomes an insurance claim. To determine possible liability, the insurance company wants to know why the pavement was wet on an otherwise sunny day and if this could have anything to do with the fact that a clogged sewer had been reported to Stockholm Vatten, the city water works. Clearing the sewer, however, is a job handled by Stockholm Entreprenad, an independent niche company responsible for upkeep and maintenance of the city's streets and parks, which in turn employs sub-contractors for many jobs like this one.

Using an application called MobiWin QA, it takes Stockholm Entreprenad only seconds to verify that the sewer was cleared 45 minutes before Eva fell on her bike. Although pavement was undoubtedly still somewhat wet, Eva was simply going too fast and didn't see it in time. Stockholm Vatten has no liability for the accident.

Service delivery verified

MobiWin QA is a quality assurance system with a map presentation running under Microsoft Windows that functions as a control center for mobile units equipped with GPS positioning equipment and Mobitex. The application now being deployed by Stockholm Entreprenad in all of its vehicles, as well as those of subcontractors, runs on the Swedish Mobitex network operated by Mowic. With this system, Stockholm Entreprenad is able to track the movements of all units, whether they are clearing sewers, plowing snow, cutting grass or providing some other service for the city

"We now use MobiWin QA for all route planning to optimize routes and minimize the distance traveled and to monitor traffic on our computers," says Veronica Runing, project manager at Stockholm Entreprenad. "The system also compiles reports and statistics that allow us to verify that work is performed as contracted, and if necessary, we can go back and check when and where a particular job was done. MobiWin QA is a very powerful tool."

User response has been very positive both among the Stockholm Entreprenad's own employees, who operate about half of the company's approximately 140 vehicles, and among subcontractors. Initial concerns that sub-contractors might bridle at having their work monitored so closely proved to be unfounded. On the contrary, most subcontractors are committed to delivering quality services and are pleased that Stockholm Entreprenad

is able to verify that they are getting what they pay for. Stockholm Entreprenad is also not interested in charting the performance of any individual worker, but only in monitoring service delivery.

The first mobile installations of MobiWin QA used a mobile data terminal with a touch screen. This relatively expensive piece of equipment quickly proved to be unnecessary, however. Instead, the mobile unit is now equipped with a black box with a single button for signaling that a deviation has occurred. The type of deviation is then determined at the control center based on the vehicle's location and the type of service that it is performing. For vehicle operators, the system thus could not be simpler.

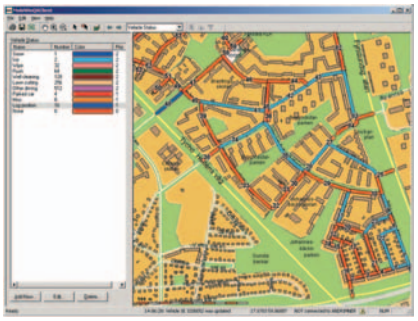
"Our greatest challenge in winning acceptance for the new system was among district supervisors," reports Veronica Runing. "They were used to planning routes manually and did not immediately appreciate the benefits of the follow-ups that the system supports. In several cases, it took some time to convince them that they could perform their work more efficiently on a computer screen, but once they started using the system, they were very impressed."

Service quality enhanced

The MobiWin QA system has now been in operation for about 18 months. Because it is a very powerful system with many features, Stockholm Entreprenad is still not using its full functionality. However, as Veronica Runing points out, changing the way an organization works takes time, and introduction of the system has therefore taken place slowly, one step at a time. In the future, Stockholm Entreprenad plans to make greater use of functions for monitoring prioritized roads and hopes to implement functions for sending work orders to mobile units.

As yet, there has been no formal evaluation of cost savings or increased efficiency resulting from the installation. Nonetheless, it is clear that the route planning functions have reduced miles traveled. Service quality has improved, and Stockholm Entreprenad has also reduced its costs for fines and penalties charged when contracted services are not delivered or not performed on time.

"On the whole, we are very satisfied with MobiWin QA. It works extremely well and is easy to use. Network coverage is excellent, and the system is very reliable. The people at Mowic and B&M Systemutveckling have also been fantastic to work with. Everyone has made an extra effort to ensure that the project was a success," concludes Veronica Runing. <



Timely delivery of quality services

MobiWin QA

MobiWin QA is a quality assurance system with GPS and mapping functions that functions as a control center for service vehicles. In addition to automatic vehicle location (AVL) and tracking of vehicles in real time, the system has a number of powerful functions for quality assurance.

- Route planning with full driving directions
- Real-time monitoring of service delivery
- Follow-ups of completed measures against planned measures
- Follow-ups of service quality
- Clear and simple reports of deviations
- Follow-ups of time limits and prioritized roads
- Detailed follow-ups of routes and times

The product was launched at the end of 2002, and version 2.0 was introduced one year later. New features in the latest version include functions for editing the road network and a web-based interface for the main functions that allows supervisors, contractors and customers to log in and follow many operations in real time on a digital map with an ordinary web browser, such as Internet Explorer. Stockholm Entreprenad uses this functionality to allow its customers, which are primarily municipal authorities, to monitor operations, but it would also be possible to provide the same information to the public so that people could check when their street will be plowed, for example.

"Stockholm Entreprenad is the largest installation of MobiWin QA to date," notes Per Bergström, system designer and co-owner of B&M Systemutveckling. "Working with Stockholm Entreprenad has helped us to improve the system in a number of ways. We are now working on service order dispatching and a number of other functions that the customer has requested for the next release."


Community
policing
initiative

Most people are not affected by major crime, such as bank robberies. Petty crime, on the other hand, is a constant source of irritation for many communities. Vandalism, graffiti, littering, drunk and disorderly behavior are all things that most of us could do without in our lives. Community policing is an initiative that is just beginning and being evaluated on a small scale in several communities in the UK.

"The community's policing needs can be better addressed. We need a new deal in the community," says former police superintendent Duncan Gerrard, now a senior consultant for APD Communications Ltd. "We need to form a task force with people from the police, the social services, public housing and health inspectors who can work together in the field."

> "The police, the social services, public housing and health inspectors work together in the field"

Keeping it simple

In a number of London boroughs and county councils across the UK, this is now starting to happen with the help of a simple, yet unique Mobitex application developed by APD Communications. Based on APD's mobile information platform, a set of applications provides peer-group messaging and access to national and local databases. The application is accessible from a PDA, such as the Grapevine from Transcomm.

"When we began looking at the issues, we realized that the information needs of many authorities are the same as the police," relates Duncan Gerrard. "Social workers, housing inspectors and drug coordinators typically need information about a person, a place, an address or a vehicle. This information is very sharable and can be presented to virtually anyone working in the field."

APD Communications therefore decided to work with the UK Mobitex operator Transcomm to develop a standard product with an application platform and a bearer that can be delivered to almost any municipal authority. The mobile applications present information in standard forms that are easy for field workers to use.
A mobile gateway has been implemented that allows information to update a shared database.

"People should not need to go into the office to post information," emphasizes Duncan Gerrard. "Uniformed police officers, welfare officers and other social workers need to be out in the community where they can be seen and interact with people. They also need to be able to share information in the field. This is not rocket science. It's about creating a very simple database that allows field workers to enter incidents and view information using the same forms."

Duncan Gerrard cites abandoned cars as a simple yet real problem that can now be addressed in a different manner. Abandoned cars are not only an eyesore and obstruct street cleaning and other public services. They are also of interest to other parts of the community, such as the tax authorities and insurance companies. When incident data can be shared, police officers can respond more appropriately and enlist the assistance of other authorities to deal with the situation.

Data protection and personal integrity

Sharing data among field workers naturally raises a number of issues relating to data protection and personal integrity. A housing inspector making a routine call should naturally not be able to access criminal records in the Police National Computer. In the system that APD has developed, every event creates an audit trail. The system not only enforces access rights, but also monitors access attempts, to ensure that field workers only have access to the information they need to do their jobs.

"Data protection is not meant to stop departments from working together," notes Duncan Gerrard. "People who have a legislative obligation to do certain things must be auditable. There is also a legal obligation to ensure that what you are recording is accurate, whether it is reporting an abandoned vehicle or the names of people drinking in a park."

"One of the great strengths of community policing in this manner is that you are really joined up. These are partnerships addressing real issues. Where there were once islands of information, community services can now share information and respond more appropriately to the things that really bother people," concludes Duncan Gerrard. <

> "Data protection is not meant to stop departments from working together"

MOBILE MARKET NEWS

Odds in Mango's favor

Fans of horse racing and football are flocking to Mango Sports, a new service recently launched by Hong Kong Mobitex operator, Telecom Digital Holdings Limited (TDHL). Using a customized version of the TWM3 two-way PDA manufactured by CNI, sports fans can get odds in real time and place bets from any location at any time, just as they would at the race track or at an off-course betting branch.

The Mango Sports service is provided by TDHL in co-operation with the Hong Kong Jockey Club (HKJC), which is the body for all betting in Hong Kong, including not only horse races at race tracks, but also football matches, lottery and other sports events.

The betting services are accessed through a modified version of the TWM3, branded with the Mango Sports and the HKJC logos. The changes involve special software for the Mango Sports service and enhanced security features that require the user to enter a special PIN code before bets are sent and which will erase all information from the device if any attempt is made to tamper with it.

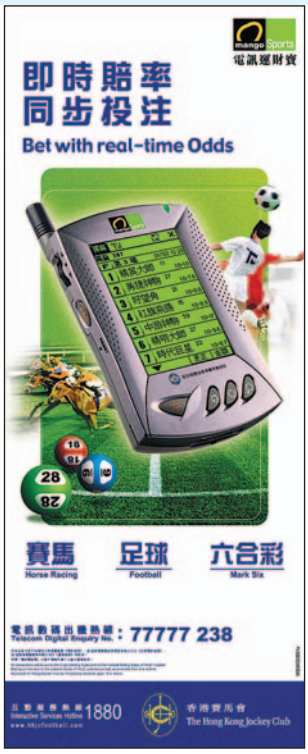
Combo PDA breaks new ground

The Mango Sports was launched in mid February, with mainly Horse racing and lottery in focus, but also some football betting. Mobitex operator TDHL plans a major launch as soon as more advanced betting services are approved by the HKJC.

Considering that the Mango Sports already is a smashing success, with more than 1000 subscribers the first month, expectations are very high at the TDHL camp. In mid May an advertising campaign started with newspaper and magazine advertisements, posters and leaflets in betting shops and Telecom Digital stores.

In the pipeline and as a step toward providing more user-friendly service, TDHL is introducing the RX2003R, a new combo PDA based on the CNI 800 MHz OEM modem and with an integrated paging receiver and FM radio. In addition to the Mango Sports service, the new device will support messaging, paging and financial information services and in addition offer a digitally controlled FM radio, a calculator, a calendar with scheduler, a Chinese/English dictionary, an address book, a set of games and system utilities.

"We knew that providing the Hong Kong citizens the possibility to receive real time odds and make real time bets anytime anywhere would require the unique features that Mobitex provides with respect to resilience and reliability. As development continues, there will be more betting features, and with the coming launch of the new combo PDA, we foresee that when the benefits of both networks (Mobitex and Paging) are combined, new opportunities will be created," says Mr Alex Cheung, Managing Director at TDHL. <



Boomer scores BIG time

Wavenet Technology, an Australian hardware developer, recently released a new wireless modem for the Mobitex. The modem is product designated BM3-900M and is achieving tremendous commercial success with its initial release in North America. With three major orders totaling approximately US$2 million, Wavenet has emerged as a major player in the 900 MHz modem market.

Although a relative newcomer to the Mobitex modem market, Wavenet was founded in 1977 and has been developing wireless devices and modules for mobile and handheld computing for many years. Following a decision to diversify its technology base, Wavenet developed the BM3-900M OEM Radio Modem for Mobitex in record time. This technical achievement is now being rewarded by resounding market success.

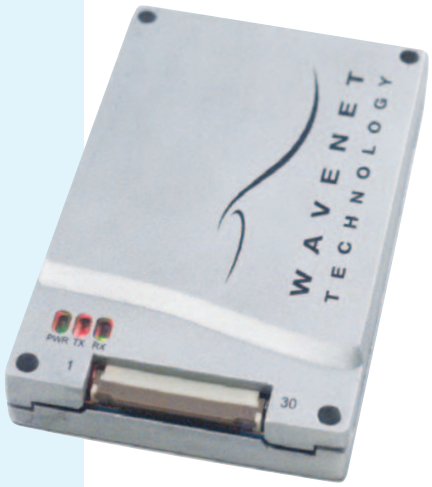
Wavenet modems for Mobitex and other wireless technologies are being supplied to Aether Systems for its fleet management solution and to Lipman Electronic Engineering for integration in wireless point-of-sale (POS) terminals. Following the original order, Aether placed an additional order valued at AUD 730,000. In the US, Cingular Wireless and Global Wireless Data are also resellers of the BM3-900M modem. > *continuing on page 18.*

Boomer scores BIG time

> *continued from page 18.* The Radio Modem is a technically advanced product that offers many compelling features. "With a footprint identical to that of the RIM 902M, it can be used as a drop-in replacement and offers a lower cost and higher performance alternative in many applications." For developers and integrators, Wavenet offers extensive support in the design, testing and implementation phases of wireless application development. Full documentation, a software developer's kit and an evaluation board for prototyping are readily available.

Wavenet is currently working with a laptop manufacturer to integrate its Mobitex modem into their product. The laptops will then be deployed in a nationwide field service application running on the Mobitex networks.

"Wavenet's wireless modem technology is state-of the art and an integral element of our wireless terminals," says Roy Neuman, Vice President Operations at Lipman Electronic Engineering. "The integration of wireless technology into our EFT and POS solutions enables users to conduct transactions in a mobile environment without the constraints of wires. We can perform debit and credit card authorizations nationwide in the United States, providing a faster, more flexible and cost-effective service for remote or temporary locations." <



The BM3-900M from Wavenet

BlueTex now with GPS

BlueTex from Wireless System Integration (WSI), the device that delivers versatility in wireless by combining Bluetooth and Mobitex, is now even more versatile. By adding a GPS receiver, WSI has created a device that is instantly usable for personal navigation and real-time tracking.

In cooperation with Swedish Mobitex operator Mowic and software company B&M, WSI has developed a hosted end-to-end solution that is now being field-testing with three customers in the Stockholm area. BlueTexGPS is being introduced now and will be available in quantity in June or July.

"BlueTexGPS is a product that goes out on the network as soon as it is turned on and does something useful without requiring anything from the user," notes Jan-Åke Lindqvist, managing director of WSI. "We have tried to make it as easy as possible to use the product, both for the end user and for system integrators and developers.

The real-time tracking and navigation functionality make it suitable for a wide range of applications.

"As an example, car dealers could simply put a BlueTexGPS device in the glove compartment of a car that a customer is taking for a test drive. The dealer would then be able to track the car and locate it if it is not returned.

Rugged and powerful

In addition to adding GPS to the original BlueTex product, which will still be available, WSI made the new device even more rugged and significantly improved battery performance. With regard to environmental characteristics, the BlueTexGPS is an IP 54 class device, meaning that it can be dropped on the floor and will withstand dust and rain. Battery performance is a full 16 hours of continuous operation on a single charge. Measuring just 150 x 100 x 42 mm, the BlueTexGPS is extremely compact. In addition to LEDs indicating communication status, the device has six function buttons that can be used for status messaging.

Initially, the BlueTexGPS will be available for Mobitex 400 MHz EU band networks, where demand is greatest. Because it is based on an OEM radio modem from CNI, however, versions for the 400 MHz UK and 900 MHz bands are planned for the future. Development of these products will be customer-driven. WSI is targeting Mobitex operators as the primary distributors, although the company is also interested in working with system integrators and end customers.

"GPS and real-time tracking are very useful in many situations, and there is a lot of software that supports this functionality," notes Jan-Åke Lindqvist. "Taking advantage of Bluetooth and communicating with a handheld PC or PDA, however, requires more work on the part of the developer. BlueTexGPS can take care of the communications, but designing a PDA-based application that is intuitive and useful for mobile workers is a challenge."

Taking full advantage of such a versatile device will undoubtedly take time. In the meantime, WSI sees great potential for the BlueTexGPS, particularly compared with two-component solutions typically costing twice as much.

"BlueTexGPS is small, attractive and instantly useful with a price that is difficult to match. We are convinced that it will be in great demand right from the start," concludes Jan-Åke Lindqvist. <

Bluetooth™
BlueTex.GPS

Cingular

customers can monitor network

“The customer version of Cingular's monitoring tools can show how applications perform under volume loading”

Cingular Wireless's Mobitex Network counts more than 400 of the Fortune 1000 companies among its Mobitex customers. These demanding professionals expect superb service from the network and depend on Mobitex for performing mission-critical tasks in the field. To deliver the service levels that its customers expect, Cingular Wireless has therefore developed a number of tools that are used both by its own operations personnel to monitor network traffic and by large customers to optimize performance of their applications.

The Cingular Mobitex network is the world's largest, with more than one million active mobile devices served by more than 3,000 base stations. The network monitoring tools that the US operator has developed are deployed in its two network control centers (NCC) to supplement the standard network management tools supplied with the Mobitex system. Versions of some tools are also available to customers.

The tools that have been developed are of two types. Alarm-based tools include Panels, which display and clear alarms on a scoreboard, AlarmView, which provides a scrolling window of alarms as they are received from the NCC, and an even more powerful tool called Mobitex NetView. There is also a traffic-based tool called DashView that is available in various configurations, including a User DashView that is filtered so that only traffic for a specific customer is displayed.

NetView – controlled customer monitoring

Mobitex NetView displays a hierarchical view of network nodes and highlights nodes that have specific alarms (typically Hardware, Congest or Disconnect). This allows the physical location of a problem node to be determined and alternative base stations for handling the traffic to be identified. The location of all network nodes can be displayed on a map using Microsoft MapPoint, which can also be used by NCC operators for clearing Congest and Disconnect alarms.

A customer version of NetView is also available that enables customers to determine where the Cingular Mobitex network is experiencing coverage or connectivity problems without calling customer service. Because the network is designed with overlapping coverage in areas of heavy traffic, there is usually sufficient radio capacity and often redundant coverage so that a problem with a particular base station will not necessarily be noticed by users. With NetView, however, informed customers gain access to some of the NCC's monitoring capacity and are able to detect coverage or capacity problems if and when they arise and to plan around them.

DashView – an interface to view real-time network traffic

In the Mobitex network, a traffic log entry is generated for every packet. These traffic log entries are batched together and forwarded to the NCC every 20 minutes or when the node has accumulated 2,000 log entries. This is standard functionality in the Mobitex system, but Cingular's Mobitex traffic-based tools also use an SQL database called TrafView that is populated with newly arrived log entries every three to five minutes. The DashView application is the primary user interface to this database.

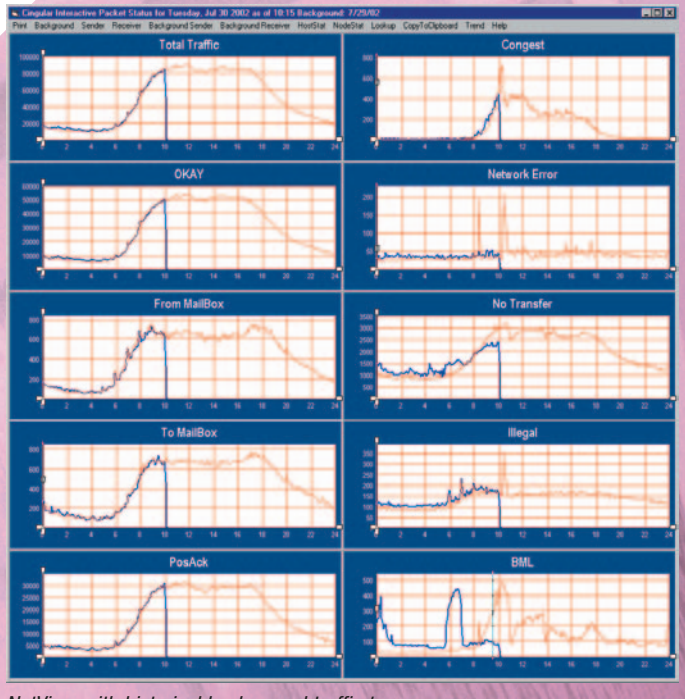
TrafView displays the current state of the Mobitex network or a specific user's traffic by amalgamating traffic information as log files are processed by the TrafView server. There are ten windows in the default display that show the packet-per-minute rate for specific and certain derived traffic states, such as OK, From Mailbox, To Mailbox and PosAck, indicating successful delivery, as well as such states as Congest, Network Error and No Transfer indicating problems that could be related to Mobitex nodes, connectivity, or a user's host or mobile application.

The User DashView application allows an informed customer to monitor all traffic to and from the mobile fleet and to and from hosts in a near real-time manner and provides a variety of ways to drill down into the traffic data to perform specific types of analyses. This allows problems with the host or the mobile fleet to be identified. Specific mobile devices with problems are identified by MAN number.

Optimizing application performance

"The customer versions of Cingular's monitoring tools can show how applications perform under volume loading and can immediately characterize the effect of application changes to its behavior on the network," says Mike Harrison, System Support Architect at Cingular Wireless. "With these and other analysis tools and support services that Cingular provides, sophisticated customers can fully understand their application's behavior and use this information to identify geographic service areas and optimize performance."

By making its own powerful network monitoring tools available to major customers, Cingular is dramatically increasing their ability to make the best possible use of the network. At the same time, use of these tools in the operator's NCCs ensures that all network users will continue to experience service levels that are unrivaled in today's wireless industry. Mike Harrison can be contacted at Mike.Harrison@cingular.com <



NetView with historical background traffic trace

- *Real time status verification of all fleet users*
- *Fault isolation and tracing within relevant network segment*
- *Trending and statistical analysis*
- *Customers manage/monitor own QoS*

Matching the means to the end

Kalevi Pessi heads the Business Technology research program at the Viktoria Institute. His group focuses on how organizations can use IT to create business value and to explore new business opportunities.

His own research interests include designing IS architectures for business value. Recently he started a new graduate program in IT management designed to correspond to an MBA and targeted to IT professionals with at least five years' experience.

Kalevi is currently active in four knowledge networks involving some 30 companies and organizations in the region.

What is the Viktoria Institute?

The Viktoria Institute is a joint-stock company owned by the Swedish Research Institute for Information Technology, West Sweden IT Association, Chalmers University of Technology and Göteborg University. It focuses on applied IT research intended to result in renewal and innovation in the West Sweden business community. Viktoria's research programs include business technology, future applications, knowledge management, mobile informatics, software engineering and telematics.

What are the objectives of the Business Technology research program that you lead?

The Business Technology group focuses on how organizations can evaluate and use IT to achieve business value and to explore new business opportunities. Today, many companies see IT as the primary enabler for future competitiveness. Yet they are still struggling to define the real business benefits deriving from IT investments. We want to provide new perspectives and knowledge on how to integrate business development and IT development. Put simply, our goal is to bridge business ends with IT means.

Why is it so hard to define the business value of IT investments?

In many cases organizations don't even try. Surveys show that as many as 80 percent of existing and planned development projects lack a business case. IT systems tend to be seen as an end in themselves, not as a means to achieve a business objective. Cost/benefit analyses of IT investments are rarely performed, and most IT investments are approved by the IT manager. Our perception is that management has resigned on IT issues, seeing them as a bothersome and excessive cost.

How can your group contribute to changing this situation?

In our ValueIT project, we are studying how companies and organizations evaluate and follow up the business value of their IS/IT investments and trying to identify the greatest difficulties. The objective is to create better tools for management for evaluating and following up the business value deriving from these investments. We also believe that we can create a theoretical framework that will make the criteria that need to be taken into consideration more visible and show how the process should proceed.

How do you measure business value?

We need to consider how the role of IS/IT has changed over time. In the 1960s, the emphasis was on rationalization and automation of existing processes. Sometime in the 1970s, the focus shifted to efficiency and increasing personal and group productivity. In the 1980s and 90s, the role was more strategic and focused on transformation of industries and organizations through process engineering. Today, however, there is a clear emphasis on creating value and in measuring IS/IT investments in terms of the sustainable value added to the business.

For these reasons, measuring the business value must take place on several different levels at several points in time and from a number of different perspectives. The impact on the business, on users and on IT systems themselves must be assessed. Evaluations must be conducted not only before the project starts, but during the project and after implementation. Companies not only need to perform traditional cost/benefit and risk analyses. Among other things, they need to assess the impact on the organization, consider stakeholder views and match IT strategies with business goals.

How does business perceive the value of IT investments?

Naturally we are finding that perceived value is often much higher than actual value. Many executives also expect higher involvement in IT projects from the business units than is actually the case. It is heartening to note, however, that measuring the value of an IT investment is increasingly seen as important and that organizations are calculating such important metrics as return on investment (ROI), internal rate of return (IRR) and total cost of ownership (TCO). It is also evident that having clear goals for an IT investment improves business performance and that greater use of post-implementation reviews increases the actual value.

> “Alignment of business and IT strategies continues to be the most important issue”

Kalevi Pessi is determined to help companies get more value from their IT investments.

What are the challenges ahead?

Strategic alignment of business and IT strategies continues to be the most important issue. Matching the means to the end and creating IS architectures that contribute to creating business value are priority issues. By identifying business goals and prioritizing IT projects accordingly, it is easier to assess the impact of IT investments on the organization and to identify the business value that they create.

At the same time, this highlights the need to describe and define the intangible benefits of IT investments. In many cases, IT investments result in product and service innovations or improvements in customer or supplier relations that are difficult to measure. Yet there is no question that these improvements create business value that must be factored into the equation along with ROI, TCO and other metrics.

What is your vision for the future?

We want to integrate business development and IT development and close the gap between senior executives and IT managers. We believe that it is crucial for the future competitiveness of Swedish industry that IT investments lead to growth in business value. If we can contribute to evaluating the business value of IT and to designing IS architectures that contribute to business value, then we will have achieved our goals. <

> “Having clear goals for IT investment improves business performance”

The bag lady

This is the story about how I became a bag lady. It all started very simply, but as life itself, things can get complicated very quickly.

To start from the beginning, I was staying with a friend while on an assignment in the Netherlands. As I left her apartment in the morning to go to a meeting, I thought I was doing her a favor by taking out the rubbish. At least that's what I thought was in the bag by the door in the hallway. That was before I realized that the Dutch have all-night grocery stores, too, but I'm getting ahead of myself.

My friend works nights as a taxi driver, so I didn't want to wake her. I therefore took the bag and tiptoed out into the hallway, closing the apartment door behind me. Out in the street, I should have looked for the nearest refuse station. I probably should have looked at the street signs, too. Instead, a saw a free taxi and my arm shot up. As usual, I was running a bit late and needed to take a taxi to get to my meeting.

It wasn't until I got in the taxi that I realized that I still had the rubbish bag. Not to worry, I thought. My assignment included a case study of an ingenious refuse collection system in which Mobitex is used both for billing the service and to signal when the refuse containers are full. My contact person had generously given me a smart card so that I could try out the system myself. All I needed to do was locate a refuse station close to my destination.

Luckily there was one not far from where I got out of the taxi. I inserted the card and pulled on the lid, but all I got was a message in Dutch. I'm not sure what it said, but I think the gist of the message was "You don't live here." My heart sank, as I realized that one of the features of the system was that it could selectively block refuse stations so that people are forced to dispose of their rubbish in their own neighborhoods.

I couldn't go into a meeting carrying a bag of rubbish, so I had to think of something fast. My absent-mindedness was embarrassing, but the only thing that I could think of was getting another taxi and sending the rubbish back to my friend. That's when I realized that I didn't know my friend's address.

My friend had picked me up at the airport the previous evening and taken me directly to her apartment. Because she had moved since we last met, I had not yet entered her new address in my contacts. It had been dark when I arrived, and I had been tired, so I really didn't have a clue as to where my friend had taken me. If I had been smart enough to hold the taxi while I disposed of the rubbish, I could have asked the driver where he had picked me up, but it was too late for that now.

I tried calling my friend, but after the phone had rung at least 20 times, I remembered that she was a very sound sleeper and realized that she was not going to wake up anytime soon. Quite possibly she had done what I had done one time when I was working nights and turned off the phone. I was left holding the bag, and either I had to cancel my meeting or bring it with me.

While I was trying to decide what to do, my curiosity got the better of me and I opened the bag. To my surprise, it was full of cold cuts, cheese and other food that my friend had obviously bought on her way home from work and forgotten to put away before going to bed. I decided that as long as I wasn't carrying a bag of rubbish, I could bring it with me to my meeting. Besides, after my meeting, I was probably going to be hungry, and it would be a long wait before my friend woke up.