

Mobile standard in sight

Ericsson, Nokia and Motorola recently presented the first results of their Wireless Village collaboration project. The purpose of the project is to create standards for mobile services, independent of which telephone or palm computer is used.

7



World-leading plans

Ericsson Juniper Mobile IP is the name of the company formed in collaboration between Juniper Networks and Ericsson. The collaboration is intended to help Ericsson become a world leader in mobile Internet. The first joint IP product is soon to be released.

11

contact



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Ericsson B share,
Stockholm 14/9

NO. 15 • SEPTEMBER 20 2001



Ericsson's President and CEO Kurt Hellström, Senior Vice President Marketing and Strategic Business Development Torbjörn Nilsson and Executive Vice President and CFO Sten Fornell, reported openly on the difficulties the company faces. Photo: Svenne Nordström

Market in focus at London summit

When Ericsson's executive management team invited 400 financial analysts and technology journalists to a one-day meeting in London, discussions centered mainly on the bleak market conditions and how things are really progressing with the rollout of the third generation of mobile systems. On the question of when the market

will get up to speed again, the management team answered that there are no signs of this occurring within the near future, but that the long-term forecasts are positive and being maintained. Mobile networks continue to grow and the 3G networks are being rolled-out according to schedule.

12-13

Sympathy for Americans

Ericsson employees throughout the world are moved by Tuesday's terrorist attacks in New York and Washington. People are reaching out and showing sympathy in many ways for the American people and for Ericsson employees in the US.

Corporate, 3

Ground breaking Italian contract

Ericsson was chosen as supplier of the backbone network for IP traffic by Italian operator, Kingcom.

"This is the first contract of its kind", says Andrea Penza, head of the New Operators customer unit.

News, 4

New telephones for young people

Two new telephones, the T65 and the T60, were launched in conjunction with the Strategy & Technology Summit. The T65 is Ericsson's third GPRS telephone. With the simple push of a button, users can access the mobile Internet, an address book and other features.



The T60 is Ericsson's new telephone for TDMA and CDMA systems.

News, 4

Global access with GRX solution

Interconnected GPRS networks provide extensive possibilities. With the GRX solution, an initiative by the various operators, unlimited global access is possible.

World Watch, 8-9

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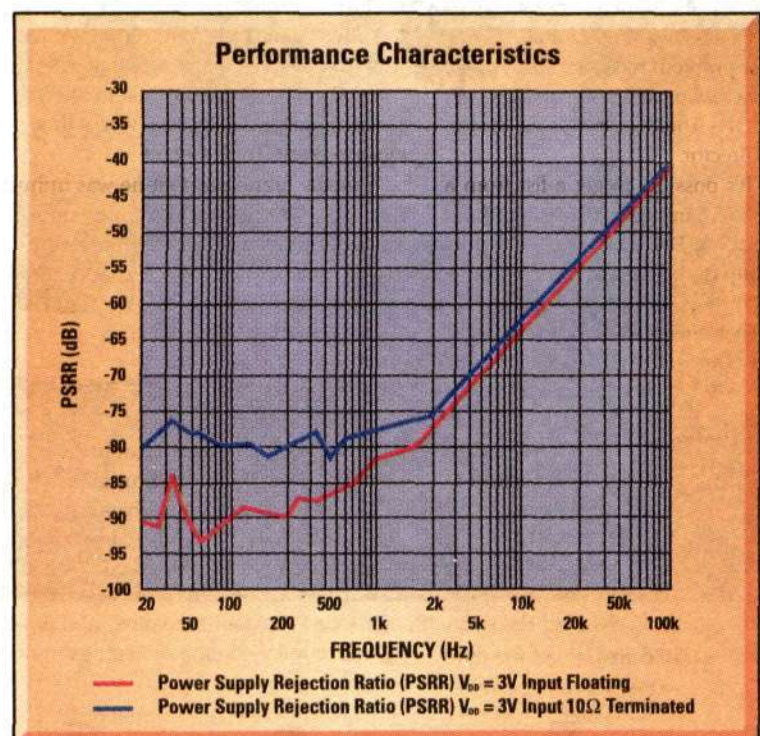
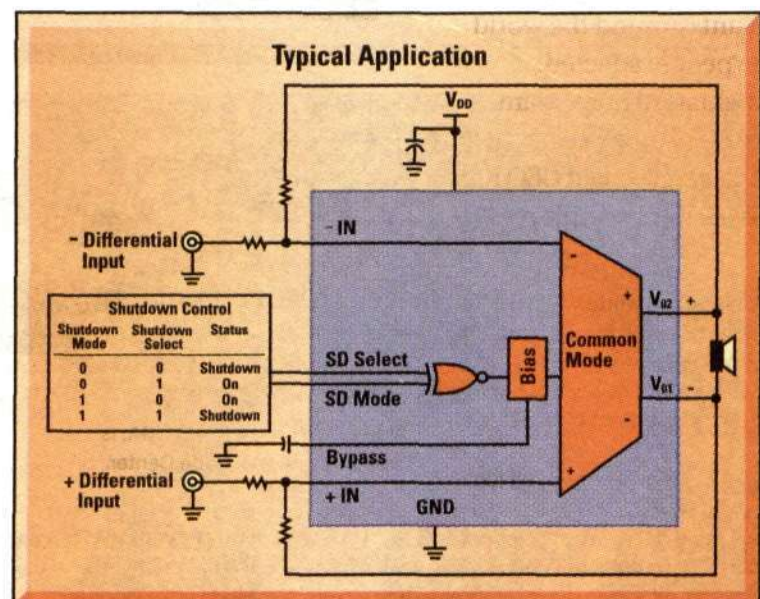
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The Sight & Sound of Information

Employees support disaster victims

The recent terrible attacks in the US have met with strong reactions throughout the world. On Thursday, a minute's silence was observed at Ericsson's plants around the world to honor the people affected.

"Our thoughts and prayers are with all of our US employees throughout this crisis", said CEO Kurt Hellström in a letter to employees.

► People throughout the world will never forget the horrific images of the burning skyscrapers collapsing and carrying thousands of people to their death. At Ericsson, the management acted quickly to address company concerns.

The decision was made to cancel all flights to and from the US and with US-based airlines. In Richardson, Texas, a disaster team was rapidly established and worked around the clock to ensure that all employees were accounted for. In addition, the Corporate Crisis Management Council was summoned.

"Our biggest problem has been locating all of the employees who were on temporary visits to the US", says Thomas Petersson, Corporate Security Director.

"Normally, it's possible to get a list from a travel agency, but many were traveling without a travel requisition. For example, we discovered that a group from Gävle, in northern Sweden, was in San Diego. We had to call Gävle to find out who these people were and how they were traveling. This sort of thing takes a lot of extra time, when time is of the essence".

Closed for security reasons

When news of the attacks came, the offices in New York, Long Island and Washington were quickly closed for security reasons and the personnel were sent home.

Ericsson has no operations in the World Trade Center, but on Broad Street, only a few blocks from the disaster area, a lab for third party mobile applications developers, Ericsson Mobility World USA, is located.

"This morning, there were only three people at the office at nine. The three employees quickly evacuated the building after the first attack and nobody was injured", says Donna Campbell, who heads the office.

As a result of the chaotic situation, the mobile network soon became overloaded and it was impossible to get through at times. Because of this it took some time before she knew that everyone was safe.

ERICSSON REPRESENTATION ON MANHATTAN



Ericsson Mobility World USA, is located on Broad Street, only a few blocks from the disaster area at the World Trade Center.

Illustration: Paues Media

"The solution was to send SMS messages. It was the only way to get through and it helped me to establish that all of my colleagues were unhurt", Donna Campbell continues.

Kathy Egan, Communications Director at the Park Avenue office, in mid Manhattan, worried for a long time before she had any news of her husband, who works in an office close to World Trade Center.

"I finally found out that he was unhurt. He had waded through ash and smoke and walked through the New York streets for three hours because all public transport was out of service", she says.

On Thursday, all of the offices were open again, except Ericsson Mobility World, since it is located where rescue work continues on the south part of Manhattan.

In the US, many people wanted to make a personal contribution of some kind to help the victims. In many places, drives have been organized for blood donations. In addition, Operation Fast Response has begun. This is a collection for which Ericsson has assumed a matching contribution policy. If an employee makes a cash donation, the company will match this up to an amount of USD 1,000. Ericsson is coordinating donations, which will be passed on to the American Red Cross Relief Fund.

In addition, employees can take one day off with full pay to assist with the clearance work.

"The response has been overwhelming. All Americans are coming to support those in need and the employees at Ericsson have certainly done more than their share", says Ken Meyers, VP Human Resources at Ericsson USA.

At the corporate level, Ericsson has also of-

fered to mobilize the Ericsson Response force, which has helped out with telecommunications in earlier disasters.

A moment of silence

Throughout the world, people have shown their sympathy and support for those affected by the attacks. The day after the disaster, Ericsson's management team decided to recommend that all sites fly their flags at half-mast. Kurt Hellström also sent a personal letter to all employees:

"Our heartfelt sympathy goes out to all of our colleagues, friends, and family in the US following Tuesday's tragic events. Ericsson has employees working in New York and Washington D.C., as well as others who were traveling in the US during the attacks. We are truly thankful that, so far, our employees are reported to be safe", he said.

In addition, he announced a moment of silence to be held on September 13 at 9:11 a.m., eastern standard time in the US. The time was chosen because the tragedy took place on September 11.

"The support from Ericsson and our colleagues all over the world has been greatly appreciated by us in the US. It really feels good to be part of a global company when things like this happen", says Ken Meyers.

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For current travel recommendations and details of Operation Fast Response, see:

<http://www.exu.ericsson.se>

EMPLOYEE REACTIONS

What are your reactions on the tragic happenings in the US?

How have you been affected at work?

Pablo Alfaro,
Course Instructor, Mexico

"I was dismayed when I heard about it. I think it is very sad that these kind of acts are done to prove something".

"I am going on a business trip on Sunday, and my plane was supposed to go via Chicago. Now I don't know if my trip will go according to plan".



Maria Syrjälä,
Planner, Sweden

"I think what has happened is awful. Like most other people I have been watching TV as soon as I get a chance. Everything else feels unimportant by comparison".

"There is a different atmosphere at the office. Everyone is subdued and pensive".



Trcak Zeljko,
Technical Trainer, Croatia

"Nothing will be the same as before - I think this will have a strong impact on many things in society, from transportation to building construction".

"Not so much. In a way, we may all be affected as this could have implications on business. I hope not though".



Stephen Matthew,
Test Engineer, Sweden

"I was worried at first because I have a few friends in New York. I tried to call and eventually I got through and could make sure they were alright".

"In my department a few people that were going on business trips to the United States were put on hold".



Alexandra Ihre, Director,
Media and Digital Media

"I am definitely very shaken that something like this can happen. It reminds you of how fragile life is".

"I was in a conference call with two Americans when the news reached us. In retrospect, I realize I should have cancelled the conference, but I just didn't realize the scope of the tragedy then".



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PRINTED AT

Nerikes Allehanda Tryck,
Örebro, 2001

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Reliable mobile networks invaluable in emergencies

On September 11 several TDMA switches were overloaded due to the attacks in New York, Washington, and Pittsburgh. The equipment from Ericsson withstood the pressure and calls could be made through out one of the darkest days of our time.

Minutes after the announcement, an emergency disaster team was assembled in Ericsson Montreal. This team worked to ensure the processing of all calls for both emergency purposes and to enable friends and family of those affected to continue to communicate.

"Having functional telecommunications is invaluable in a disaster situation", says Iain Logan, head of Red Cross operations in North and Latin America. Iain Logan emphasizes the importance of having the appropriate assistance at the right time.

Maximum capacity

Processor loads went up to maximum capacity. Besides the teams that worked at Ericsson in Montreal, attention was given to congestion in Chicago. There, some calls were limited but only for a few hours.

Much of the load was relieved by stopping measuring programs and

by disabling global and local authentication challenges. Permission was granted from AT&T Wireless to execute any procedure that Ericsson expert teams thought were appropriate to increase capacity. SCC (Simultaneous Call Capacity) was increased in areas that had reached the call capacity limit.

Between the hours of 9 and 12 a.m. processor loads in the Washington Mobile Switching Centers were between 90 and 99 percent. The busiest hours saw 450 attempts for access per second. This is almost twice the amount of traffic seen during the new millennium.

"Rescue workers can broadcast

important messages to co-workers via mobile phones, to call in extra help, for example. People rely on mobile communications to get assistance. It can save lives, as you can call from where ever you are located", says John Giere, vice president branding and market communications.

"If you lose your home or if you are evacuated you can always be in touch by cellular phone", adds John Giere.

250 calls per second

Some outgoing calls were postponed momentarily and all calls to the mobile stations were delivered.

Ericsson's infrastructure was maintained completely free of error.

By one o'clock in the afternoon there was stable throughput in the switch with an average of 250 calls per second being requested and accepted.

Five teams were assembled and dedicated to each corporate customer, one recovery leader per customer.

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Breakthrough for broadband solution

Ericsson has secured a breakthrough contract with Italian operator, Kingcom, for a broadband solution that builds on Ethernet technology.

The agreement means that Kingcom will be able to offer IP telephony, faster Internet and other new services to its customers, primarily in the Salerno area. The transaction is the first step in a larger agreement comprising the build-out of gigabit Ethernet services for other cities and companies in southern Italy.

A regional operator

Kingcom is a small, regional operator, established in Italy a little over a year ago. The Naples-based operator has been courted by Ericsson, Siemens and Italtel-Cisco.

Andrea Penza, who is responsible for the New Operators customer unit, says that Ericsson was the natural choice. The reason for Ericsson being selected ahead of Siemens and Italtel-Cisco was the company's support network and its capacity with regard to systems integration, and its quality products from Juniper Networks and Extreme.

A network to put on show

"We are going to supply Kingcom with a core network for IP traffic, as well as Ethernet and end-user equipment. This will be a network we can put on show for other customers", says André Le Lerre, who is responsible for the transaction at the Multi-Service Networks and Data Backbone Business Unit.

The rollout in Salerno will begin

about ten months after the installation of the cables.

"Salerno will have one of the most modern networks in the world when we have finished", continues André Le Lerre.

Ericsson has secured two contracts for the extension and upgrade of IP backbone networks in China and Poland.

With the new Chinese contract, 75 percent of the backbone network in China will consist of Ericsson AXI IP backbone routers.

Ericsson will deliver AXI 520 routers to Shandong Mobile. The model is based on Juniper's M40

"This is the first contract of its kind. The marketing of new technological concepts and innovative services will grow increasingly important in obtaining the end-users necessary to provide dividends. Eric-

son supports Kingcom all the way", says Andrea Penza.

Dodi Axelson

IP contracts in China and Poland

router. Ericsson will also deliver two internally developed access servers, the AXC 623 and the AXC 470, to Shanxi Mobile and Mongolia Mobile.

In addition to delivery and installation, the contracts include agreements regarding maintenance and training.

In Poland, Ericsson is to upgrade the IP capacity of the country's largest operator, Telekomunikacja Polska.

The upgrade provides a data transfer speed of 2.5 Gbits per second. This means that the operator can begin to offer its customers DSL services, that is, broadband services over copper wires.

In addition, the network will become a platform for a multi-service network, with both telephone and data traffic.

Dodi Axelson

Internet at the press of a button

Simplicity is the theme that characterizes Ericsson's third GPRS phone, the T65. At the push of a button, the user can access such features as the Internet and the address book.

The higher data transfer speeds enabled by GPRS – up to 43.2 kilobits per second – make it easy to send images and to chat. The phone is small, has a six-line display and a built-in antenna. Users can choose between yellow and two different shades of blue.

The T65 is aimed at young people up to 25 years of age. In addition to the phone's simplicity, it is believed that the services will be the main

attraction for this younger audience. The user can send images through the EMS function, chat on the Internet – which is accessed by pressing a single button – and also download call signals and play games.

The phone is scheduled to be

launched commercially in October and will be sold in Europe, Asia and certain Latin-American countries, that is, countries with GSM on the 900 and 1800 frequencies.

But how does the T65 phone differ from the T39?

"They are part of the same product family, with the difference that the T65 doesn't have the Bluetooth and IR functions. Instead, it has, for example, a phone book with images, which means that the user can receive an icon image of the person

calling", says Charlotte Löffler Ivarsson, global product manager at Ericsson Mobile Communications.

Ulrika Nybäck

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New models also for Americans

The T60 is Ericsson's new phone for TDMA and CDMA systems. The design and functions have been created to appeal to people with an active lifestyle.

The phone will be launched in North and Latin America during the fourth quarter of this year.

The TDMA version is called the T60d and the CDMA version is the T60c. Both have wap, e-mail, an

agenda, advanced phonebooks and a joystick for simple menu navigation. The T60d has a built-in antenna, while the antenna on the T60c is telescopic.

The CDMA model also has an extremely high data-transfer speed – up to 153 kbits per second – and EMS, a messaging function offering the possibility to send graphics and sound.

Both models can be used in con-

junction with SmartBack accessories that fit the back-piece of the phone, including a collapsible hands-free set.

The T60 has replaceable shells in seven colors. It weighs 125g and the battery has a stand-by time of 230 hours and call time of 2.5 hours.

Lars-Magnus Kihlström

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The T65 is available in several colors and is designed to appeal to young people. It is scheduled to be launched in October.

Joint venture approved

Ericsson and Sony's Mobile Phone joint venture was approved on September 11 by the boards of both companies. Sony Ericsson Mobile Communications AB also got a board of directors during the meeting in Stockholm.

Ericsson and Sony held their board meetings in Stockholm on September 11 and confirmed that the joint venture will take off on October 1.

"The market conditions are tough right now, but this is the best time to start up the joint venture", commented Nobuyuki Idei, chairman and CEO for Sony Corporation.

Sony is market leading within consumer electronics and Ericsson is market leading within telecommunications.

Kurt Hellström, president and CEO for Ericsson says that the joint venture can bring these parts from the parent companies and create its own profile on the market.

"We have all the possibilities to make this an extremely successful organization".

For the new joint venture the downturn in economy can be an advantage.

"I think that starting the joint venture now in fact is the perfect timing. It will make people more cautious and the plans more realistic", says Nobuyuki Idei.

Differences in corporate culture has been a problem in some joint ventures historically, but the CEOs of both companies agree that cultural differences is not a problem this time.

"We are naturally aware of that cultural differences can be a pitfall, but this time we have found that the similarities between our companies are bigger than the differences. Basically, we are both international



Sony's and Ericsson's boards met in Stockholm for a joint board meeting. Top row from left: Howard Stringer, Sverker Martin-Löf, Markus Wallenberg, Iwao Nakatani, Tom Hedelius, Teruhisa Tokunaka, Göran Lindahl, Peter G Peterson, Minoru Morio. Bottom row from left: Teruo Masaki, Kurt Hellström, Nobuyuki Idei, Norio Ohga, Lars Ramqvist, Kunitake Ando.

Photo: Rolf Adlercreutz

companies in the same business reality", says Kurt Hellström.

"But what is most important is that the joint venture creates its own culture, separated from the origins. This will make the necessary drive for the new company to compete with the other manufacturers", says Nobuyuki Idei.

A factor that might help the merge is that Swedes are sometimes called the Japanese of Europe.

"We have tried to analyze that and maybe that's because we both like fish a lot as well as strong drinks and singing", says Kurt Hellström and both him and the

CEO of Sony Corporation start to laugh.

The board of directors of both parent companies agreed upon the composition of Sony Ericsson's board. President and Chief Executive Officer of Ericsson, Kurt Hellström and President and Chief Operating Officer of Sony Corporation, Kunitake Ando, hold seats, as well as Chief Financial Officer Sten Fornell (Ericsson) and his Sony counterpart Teruhisa Tokunaka. Other members of the board are Morgan Bengtsson, president of Ericsson Japan, Otto Zich, chairman and chief executive officer of

Sony Europe, and the President and Executive Vice President of Sony Ericsson, Katsumi Ihara, and Jan Wäreby respectively.

The joint venture will begin operations October 1, upon approval by regulators. Profitability is expected from day one and the equally owned company aims to become the leading player in both mobile phones and other handheld multimedia communication products.

Jesper Mott

Lars-Magnus Kihlström

Enterprise Solutions becomes Damovo

New strategies, new brand platform and new name. This is all part of the make-over that Enterprise Solutions is going through to become a leading network and system integrator.

Following the sale of Ericsson Enterprise sales and services operations to Apax Partners, announced earlier this year, the spin-off company Enterprise Solutions is launching its strategy to become a leading net-

work and system integrator under their new name, Damovo.

Damovo is a multi-national company, employing 2 700 staff and with an annual turnover of approximately USD 900 million. The new company has 19 offices spanning Europe, Latin America and Australasia. Damovo will start with a blue chip client list inherited from Ericsson, including 21,000 international organizations from the worlds of government, banking, public services, utilities and healthcare.

"The new company is the 'perfect balance', combining expertise from Ericsson with the entrepreneurial skills of a brand new enterprise", says Pearce Flynn, CEO of Damovo.

Ericsson owns 20 percent of Damovo, and Apax Partners funds hold the majority of the remaining shareholding.

The new company will continue to sell Ericsson Enterprise's product portfolio. In addition, Damovo has the possibility to

source third-party products to further enhance the total offering to the customer.

The selling of Ericsson Enterprise's sales and services operations in May this year was in line with the earlier announced strategy of concentrating on indirect sales to enterprise customers via a multitude of sales channels and partners.

Tonya Lilburn

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Ericsson Response sends phones to the UN

Ericsson Response is donating 280 mobile telephones to the UN Volunteers organization. Ericsson employees have mainly collected SH888 telephones, which are enormously popular among UN personnel.

"The triple-8 telephone has been used for a long time by other UN organizations, and it's especially

well-liked because it has a built-in modem and an infrared port. In the field, people want as few cords and accessories as possible, so they don't have to keep track of anything", says Dag Nielsen, who has worked within the UN. These days, he is responsible for the Ericsson Response disaster support program.

The phones will improve communications and security for volunteers

working in such countries as Angola, Bosnia, Congo and East Timor.

"The donation is coming at just the right time, since the UN declared 2001 as 'International Volunteer Year,' and, at the same time, Ericsson Response started developing its own volunteer program - training that prepares employees with varying experience and backgrounds to travel to disaster areas", says Dag Nielsen.

Ericsson Response has previously supported local Red Cross organizations and the International Federation of the Red Cross with telecom equipment and emergency supplies for refugees in Kosovo, and during the earthquakes in El Salvador, India and Peru, as well as in other emergency situations.

Ulrika Nybäck

Engine campaign halted

Just one hour after reports were received from the US about the terrorist attacks in New York and Washington D.C., the Engine campaign was removed from the Ericsson Internet site.

The Engine campaign, Dangerous business made safe, contains rescue and fire themes with pictures of firemen and policemen in dangerous situations.

"Some of the pictures in the campaign could be regarded as offensive. So we decided to pull the campaign and will evaluate what parts of the material we can use", says Mitch Lewis, who is responsible for the campaign.

"But the campaign is not our main worry now. At this time, our thoughts and hearts go out to the victims", says Mitch Lewis.

New order for GPRS in China

China Mobile is making Ericsson its main supplier for the second phase of its GPRS network. This means that Ericsson will reinforce its leading position within GPRS technology. Ericsson was also the main supplier for the initial build-out of the network.

With phase two, China Mobile's network will increase its capacity to 2.1 million subscribers. The network already functions in 25 cities. The expansion will begin in October.

Another GSM contract in China

Ericsson has signed a contract valued at approximately USD 100 million with Guangxi Mobile Communication Corporation (Guangxi Mobile) to further expand its GSM network. Nanjing Ericsson Panda Communications Company Ltd. will supply the equipment. Deliveries will begin in November this year.

Upon completion of this expansion project, the capacity of GSM network of Guangxi Mobile will increase to four million subscribers. Besides the infrastructure expansion, Guangxi Mobile has chosen Ericsson as the supplier of its GPRS solution.

"We are delighted to provide Guangxi Mobile with our advanced technology, products and services to satisfy the growing need of the region", says Mr. Stephen Yeung, Executive Vice President of Ericsson (China) Co. Ltd.

Small Taiwanese launched in Asia

This month, the A3618 mobile telephone is being launched throughout Asia and the Pacific region. The phone has been developed in collaboration with the Taiwanese contract manufacturer, Arima. The phone is adapted to Asian consumers' requirements, being small and light, and with a large display, which allows a choice between green, red, blue and yellow as background colors.



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Three-way cooperation begins to bear fruit

The idea behind Wireless Village was hatched in a café in London, just under a year ago. Ericsson, Nokia and Motorola were recently able to present the first fruits of their collaboration: wireless messaging services that function regardless of which telephone or hand-held computer is being used.

On December 7, 2000, Lars Novak, who heads development work on mobile Internet services at Ericsson in Lund, was sitting with a colleague from Nokia at a café in London talking about the obstacles that must be overcome in order for the Mobile Internet to really take off. One important issue that came up was the standardization of protocols for mobile services.

"We felt that we should be able to collaborate in this area and decided to present these ideas to our bosses. They acted rapidly and by March,



Lars Novak

the Wireless Village cooperative project was launched", explains Lars Novak, shortly after the first internal demonstration of the results of this cooperation at Ericsson in Kista, outside Stockholm.

Wireless Village is a collaborative effort between Ericsson, Nokia and Motorola to establish standards for mobile instant messaging and presence services, that is, interactive messaging and information about individuals' availability.

Large support

The purpose of this cooperation is to connect mobile and fixed telecom networks, regardless of service providers, operators or brand of mobile telephone. Wireless Village is supported by 52 telecom companies and application developers.



Phil Littlewood from Motorola, Anna Hultman from Ericsson and Eija Saario from Nokia are pleased with the first demonstration of Wireless Village. The purpose of the collaborative project is to establish standards for mobile services.

Photo: Ecke Küller

"Interest in the project is extensive and new companies are joining up each week", explains Anna Hultman, strategic product manager for Wireless Village at Ericsson Mobile Communications.

"The purpose of the project is to enable users to use their mobile phones or hand-held computers to chat, find out how their friends or colleagues are, whether or not they are online and where they are, regardless of which telephone or palm computer they are using", she continues.

Interest in messaging services is

substantial. Currently, for example, 100 million consumers use ICQ via the Internet and, each month, almost 25 billion SMS messages are sent globally.

During the internal demonstration, the three companies presented mobile telephones that could be connected to an I-Pulse server from Ericsson and a Motorola server.

Developers pleased

The representatives from Nokia and Motorola who were present were pleased with the results.

"The demonstration went well. We were able to show that the services functioned on all of the terminals", says Eija Saario, research and development manager for mobile messaging services at Nokia.

Phil Littlewood, who works with business development at Motorola, agrees.

"The collaboration has worked extremely well so far, because we are working towards the same goal. In the long-term, however, I think the collaboration must be extended".

The participants at the demonstration hope that the first standardized services will be on the market as early as next year. Wireless Village has planned a new demonstration for November 2, this time for the companies supporting the project.

The final specifications for the standard are to be ready by February 14, 2002.

Ulrika Nybäck

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TCS resolves UAB's consulting problems

During the summer, UAB, Ericsson's development company that is responsible for the development of technology platforms, signed a framework agreement with India's TATA Consulting Services (TCS).

The agreement applies primarily to the writing of coding for some core sections of the AXE platform, work that must be conducted properly, without compromise, and requires about a year of training. This is why it was crucial to find the right partner.

"We needed a strong partner – in a single location – instead of engaging several different consulting compa-

nies", says Thom Brolin, who is responsible for some core sections of AXE development.

"We had a desperate need for skilled personnel a year and a half ago, when TCS took the initiative and contacted us to offer its services", says Mats Karlsson, who is responsible for the general development of processors at Ericsson.

"The company gave an excellent impression and we had six of their consultants working for us for a while. After only a month, they had produced coding for one of our most complex function blocks. It was solid work that they delivered, which led to more advanced cooperation and culminated in the

framework agreement", says Thom Brolin.

The TCS consulting company is part of TATA, India's largest privately owned company, which manufactures everything from cars to telecom equipment and household appliances. TCS has approximately 17,000 employees. For about ten years, the company's programmers have been making a name for themselves as experts and have collaborated with many leading western companies. TCS has offices in six cities in India and operations in some 40 countries throughout the world.

"This means that TCS not only has unique expertise that we cannot

find in Sweden, but it is also reliable in the long term and suited to our need to outsource complete assignments", says Thom Brolin. "This work involves mature systems, such as AXE, with clearly defined systems components. In the near future, TCS will take over responsibility for one of our subsystems, which will mean that we are able to free up our own personnel for other tasks".

"I don't think I have ever been involved in a project where all the pieces have fallen into place so well", says Ericsson's project manager Conny Berg, adding that this also applies to training, organization, negotiations and other aspects.

Ericsson currently has more than

20 TCS consultants in Hyderabad, in India, and about ten in Älvsjö, Sweden. One man, Lars Jonasson, works in Hyderabad to facilitate communications between the offices. In October, TCS will have two proper test facilities, which will be placed in operation in mid-November.

"We can envisage employing more consultants from TCS", says Thom Brolin. He believes that other Ericsson units could become involved in the framework agreement.

"If we have succeeded with our complex products, then everyone can".

Lars Cederquist

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Capacity worth gold

Unlimited worldwide access. This may be the outcome of GRX, an initiative to link the GPRS networks into a single data network.

"This is my vision, the way I would like things to be", says Anders Roos, who led this effort on behalf of the GSM Association.

GPRS entails many challenges for the telecom industry. One of them is to interconnect GPRS networks to support what is called roaming.

Anders Roos, who currently works for the Northstream consulting company in Tokyo, previously headed a working group within the GSM Association whose goal was to find a solution to this problem. Its efforts resulted in GRX (Global Roaming Exchange), which can be likened to a spot market in which operators can trade capacity for connecting to each other's networks without regard to the messy details.

"The GSM Association realized long ago that an initiative was needed. GRX is a concept that allows operators to interconnect their networks easily", says Anders Roos.

22 providers

A GRX is actually a hub that directs IP traffic between wireless networks or to other GRXs. The idea is that commercial players should be encouraged to start roaming exchanges.

The initiative appears to be a success. There are already 22 GRX providers around the world. International Internet service providers, such as Worldcom and Cable & Wireless, have shown the greatest interest, but other players include AT&T and BT's joint venture Concert, which works with international telephony.

"GRX is an outstanding initiative that will speed up the introduction of GPRS", predicts Martijn Mortier, head of Ericsson's technical support for backbone networks in the Asia Pacific region.

A few tweaks

At Ericsson, GPRS products have received a few tweaks to prepare them for GRX. However, GRX does not have any major implications for Ericsson.

"There are, of course, certain irregularities, but that is always the case with new technology. We are trying to solve these together with our customers", says Martijn Mortier.

The common denominator for GPRS roaming is IP (Internet Protocol), the most common standard for transporting data traffic.

Many parameters involved

"Packet data is what makes GPRS roaming so multifaceted. While GSM roaming can more or less only handle voice traffic, GPRS is much more complex. There are many more parameters involved when it

comes to tariffs, services, applications, quality assurance and, in particular, security. There are a number of issues to address", says Anders Roos.

Several billing options

"Take payment as an example. GPRS provides operators with several billing options - everything from a fixed monthly rate to time connected or the amount of data transmitted. How will subscribers who are roaming in a country other than their own know what they are paying for?"

Another example is if a subscriber roams onto an intranet. How should a secure transmission be guaranteed?

Although packet data increases the level of complexity, it is precisely for that reason that comprehensive roaming is possible.

Great interest

GPRS also means that the telecom industry will have new points of contact with the Internet industry. An important part of Anders Roos' work with GRX has been to meet with leaders in the Internet world to explain ways of thinking. Interest has been considerable, he reports.

Nonetheless, he views the GRX initiative as a long-term undertak-

ing. Seamless global roaming will not be here tomorrow or even next year, but it will eventually become a reality. Roaming in 3G networks will then merely involve an expansion of the functionality already enabled by GRX.

What will roaming cost subscribers?

"It is almost impossible to say. Naturally, it will depend on how services are used, but it will be less expensive than today", predicts Anders Roos.

Mats Lundström
kontakten@lme.ericsson.se



With GRX, GPRS Roaming Exchange, all GPRS networks will be linked in a single network. The result will be a roaming exchange where operators may purchase capacity for connecting to each other's networks without worrying about details. There are already 22 GRX providers.

Illustration: Kerold Klang

FACTS/ROAMING

- Roaming involves connecting various mobile networks so that you can place calls using your regular subscription regardless of where in the world you are.
- GRX allows operators to eliminate the administrative work currently required for roaming. But they still need to have agreements with each other regulating the use of the radio networks.
- Global operators such as Vodafone and France Telecom might have roaming agreements with hundreds of smaller operators. Operators lease fixed lines to connect GSM networks, thus enabling roaming.
- By 2004, data traffic is expected to account for nearly half of all traffic in mobile networks, and the volume of data in roaming between networks is expected to increase from two to ten percent. These are the conclusions of market analysts such as The Arc Group, Ovum and IDC.
- Each roaming agreement requires extensive and time-consuming technical and administrative work.

Roaming between continents

The US company TSI Telecommunications Services is now setting its sights on Europe. This company, which is an independent subsidiary of Verizon, hopes to sell a number of products for mobile data roaming to European operators.

TSI recently launched an entire family of products for mobile data roaming and now has five North American GSM operators as customers, according to the Total Telecom website.

The company regards the new products for GPRS roaming as a springboard for gaining entry to the

European market. The first contract with a European operator will be signed shortly, according to TSI.

"For European operators, it could be a gateway to the Americas", says Lisa Huetteman, director of business development at TSI.

As an example, employees in Europe or the US who are connected to an operator that uses these products can easily exchange SMS messages or take advantage of lower tariffs through roaming.

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Be your own analyst

Are you interested in wap news? Or do you read all the articles you can find about Bluetooth?

Get help finding information about your areas of interest through Ericsson's Business Intelligence Center portal (BIC). On the website, you can also find colleagues who share your interests.

About 15,000 employees are already using these facilities. However, the number could be much higher, according to Krister Lagerborg, who is responsible for the portal.

Traditionally, it is analysts who use business intelligence. But most people should be able to make use of the selection, regardless of whether your interest lies in a specific product, an operative system or what is happening in a certain market.

"Many people invest a huge amount of time searching on the Internet", explains BIC manager Krister Lagerborg. "What we offer is quick news, advanced analyses and reports from about 30 quality-assured external websites".


A little known finesse is the function that enables users to find others in the company who search for information in the same areas. Per-Olof Nyquist, head of Ericsson University, sees this as an efficient method of networking competence. Considering BIC's current structure, this is mostly a positive side effect. There are plans to create a parallel tool to further develop this function.

During the past year, another innovation


has been to link the portal to a number of analysts throughout the world, who occasionally publish texts on current events.

The search engine has also become more advanced. Anyone who registers and creates an agent will receive optimal help in refining his or her searches, deselecting information that is not required. BIC currently has more than 4,500 registered users.

Maria Paues
maria@pauesmedia.se

 BIC.ericsson.se

What research companies and news sources should be available on BIC in the future? An evaluation is currently underway and you can express your opinion. Visit BIC to find a questionnaire to complete. It only takes a few minutes.

 jazznoise.ericsson.se/forms/survey.php



At BIC, you will find news, advanced analyses and reports from a number of research organizations and news sources.

FACTS/SEARCH TIPS FOR BIC

- The BIC search engine is not based on key words, but is concept-based. For this reason, you should write complete sentences when you make searches. For example, "wap" is an ineffective search question, while "I'm interested in Nokia's strategies for wap" immediately provides more exact hits.
- Take time to make searches. Each time you use BIC, your search profile becomes more distinct, which makes it easier to find the documents you are interested in.
- A fun feature is that as a registered BIC user, you can see the names of other users who are interested in the same areas as you.

Intelligence will grow

Knowing the market is becoming increasingly important to companies. This is why the market is ripe for a significant upswing for business intelligence software, according to a new report.

Business intelligence software encompasses special tools that are used to collect and sometimes analyze information from various sources, such as websites, clients, vendors and internal data sources.

Analysis firm Datamonitor predicts that this market will grow by about 35 percent each year in the near future.

The main driving force is the need for companies to be well-informed in order to be able to make the right decisions in a constantly more complex reality.

The report says that the European market for business intelligence software will be valued at USD 5.8 billion in 2005. Globally, the value will be as much as USD 17.4 billion. Large enterprises will represent about 98 percent of the amount in the European market.

The greatest demand is for packet solutions that do everything from collecting to analyzing and presenting relevant information.

The name of the report is Business Intelligence: from Data to Profit.

Elin Dunås

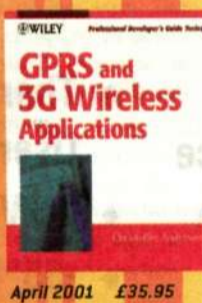
Source: Datamonitor, Computer Sweden

new titles from Ericsson authors

GPRS and 3G Wireless Applications

Christoffer Andersson

Designed to answer key questions on how to develop applications for wireless technology, this unique handbook explores how a host of relevant technologies work together with the new worldwide standards—General Packet Radio Service (GPRS) and Third Generation (3G). Leading expert Christoffer Andersson clearly explains how GPRS and 3G control the mobile environment, then goes on to describe how the emerging radio technology of Bluetooth fits in with WAP and Java, how wireless applications work with HTTP and TCP/IP on the Internet, and how to create "always-on" wireless applications.



April 2001 £35.95

XSLT

The Ultimate Guide to Transforming Web Data

Peter Stark, Johan Hjelm

Written by the leading architects of the XSLT transformation technology, this book introduces Web developers and content designers to what is widely expected to replace Perl as 'the' Web translator. You will find expert guidance on how to create the transformation sheets that guide the process of translation, how to optimize content for the most frequent formats through the use of transformation hints, as well as how to install and use the necessary software.

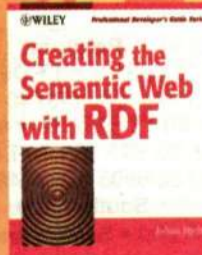


Oct 2001 £35.95

Creating the Semantic Web with RDF

Johan Hjelm

This book provides a complete guide to using Resource Description Framework (RDF) to create Web services, both wired and wireless, for metadata, or data that is maintained by an application. The author explains RDF theory and practice and how it compares to XML and HTML and provides source code for several important tools. He includes descriptions of real services, both for the desktop computer and the handheld wireless device, and hands-on examples illustrating how metadata is used to tailor services for users.



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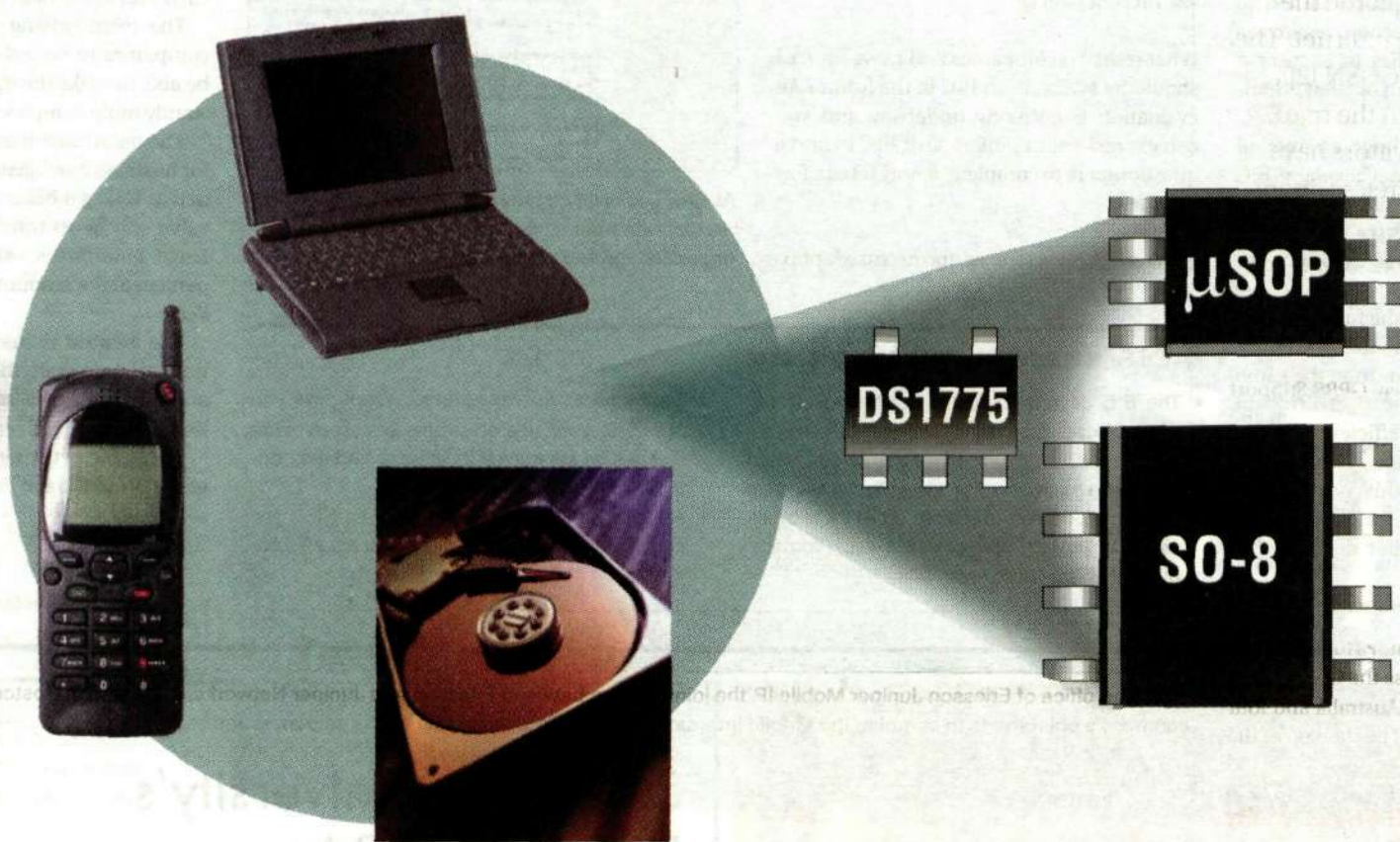
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Great interest for Ericsson's partnership with Juniper

Ericsson is seeking help from Juniper Networks to become the world leader in Mobile Internet. The first joint product, the GGSN J20, will soon be released on the market, and several major operators have shown interest. The wireless operator Hutchinson has already placed an order for its GPRS and UMTS networks in Australia and Italy.

► The GGSN J20 is a Gateway GPRS Support Node, which provides the link between the wireless network and the Internet and converts mobile telephone traffic into data traffic on the Internet. In addition to GPRS, the product also supports UMTS and is the first IP (Internet Protocol) product to be developed by the joint venture Ericsson Juniper Mobile IP.

The global wireless operator Hutchinson is the first customer to purchase the GGSN J20. A total of nine nodes, five for Australia and four for Italy, will be delivered to Hutchinson at the beginning of next year.

"We are naturally very pleased to have received these orders. They confirm the strength of our product and strengthen the self-confidence of those who are working in the joint venture between Ericsson and Juniper", says Bernth Gustavsson, President of Ericsson Juniper Mobile IP.

Negotiations are also in progress to supply this system to other mobile operators.



Bernth Gustavsson



The head office of Ericsson Juniper Mobile IP, the joint venture between Ericsson and Juniper Networks, is located in Boston in the US. The company's objective is to combine the Mobile Internet knowledge possessed by both companies and to jointly develop competitive IP products.

Photo: Tommy Ottebjær

Ericsson Juniper Mobile IP was formally established in November of last year. The objective was to create a company in which the two partners' combined expertise in Mobile Internet would be used to jointly develop competitive new IP products.

Creates opportunities

"This partnership naturally creates fantastic opportunities, given the knowledge that the two companies possess. In a larger perspective, it is an additional piece in the puzzle in Er-

icsson's ambition to be the world leader in Mobile Internet", says Bernth Gustavsson.

Head office in Boston

Ericsson Juniper Mobile IP is based in North America and has its head office in Boston. Product development has been divided up equally and takes place in Juniper Network's facility in Sunnyvale, California and at Ericsson in Montreal, Canada. In total, 60 individuals work in the company, which up until now has maintained a low profile.

"We have intentionally kept a low profile, particularly externally. Rather than release details about the company, we want the products to speak for us".

"During these initial months, we have devoted all our energy to getting the first products on the market", concludes Bernth Gustavsson.

Jenz Nilsson

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An aggressive American challenger

Ericsson's partner is a young and aggressive American IP router manufacturer that has shaken up IT giant, Cisco. For each month that passes, Juniper wins new market shares at Cisco's expense.

► The six-month report that Juniper presented on July 12 showed sharply increased sales of the company's IP-related products. In total, Juniper reported sales of USD 540 million, primarily attributable to its IP routers for 3G networks. This increase amounted to fully USD 330 million, compared with the year-earlier period.

"The report shows that our priorities during this period, which were customer growth, financial discipline and renewed investment, were correct", says Scott Kriens, president of Juniper Networks Inc.

Comparing sales and earnings since the start in 1996, the trend is even stronger. In the

US router market, Juniper Networks emerged as Cisco's biggest challenger about two years ago. Cisco has been forced to look on as several customers and important markets have been lost to Juniper.

"We are really trying to focus on our customers, rather than the competition. Although Cisco is our largest competitor, we would rather try to take business from them than devote effort to competing with them directly", says John Riedel, business development manager at Juniper Networks.



John Riedel

Successful strategy

In view of the six-month results, this is certainly a successful strategy. With respect to market share for IP routers sold worldwide, Juniper Networks now claims that it has a 38-percent

share, to be compared with 17 percent one year ago.

During the same period, Cisco fell from 80 to 59 percent. Recently, the network test site Light Reading recognized Juniper Network's IP routers, as well as its MPLS (Multi-Protocol Label Switching) routers, as the best in the industry.

Fruitful partnership

There is therefore no question that Ericsson has chosen a competent company on the rise as its partner. The relationship is mutual, however, and Juniper Networks is very pleased with the joint venture.

"We view Ericsson as one of the leaders in Mobile Internet, and this partnership is an excellent way to combine both companies' strengths", concludes John Riedel.

Jenz Nilsson



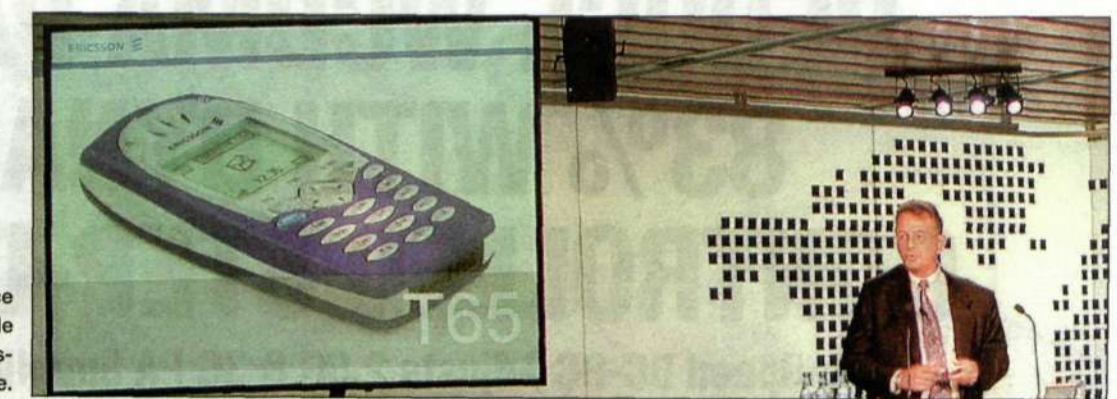
Kurt Hellström, Torbjörn Nilsson and Sten Fornell from Ericsson's Executive Management were beleaguered by financial analysts and the specialist press, who wanted answers as to how Ericsson will cope with the economic slowdown and how the rollout of 3G networks is progressing. Photo: Svenne Nordström



Ericsson CFO, Sten Fornell sees no evident signs of the market turning around within the near future, but he maintains his target of being able to report a positive cash flow by the end of the year.



The transition from 2G to 3G is the largest technology shift ever, according to Torbjörn Nilsson, Ericsson's senior vice president, Marketing and Strategic Business Development.



Right: Jan Wäreby, executive vice president of Ericsson Sony Mobile Communications, presented Ericsson's new T65 mobile phone.



Interest was extensive when Ericsson held its second Strategy & Technology Summit. Approximately 400 analysts and technology journalists came to London to listen to Ericsson's message and to interview central figures within the company.

Gloomy economies but promising technology

When Ericsson gathered financial analysts and technology journalists to a large-scale review in London, the reaction came in the form of gloomy headlines and free fall on the stock market. The market was painted black in the media, but anyone listening more carefully should have noticed that there is much that is positive despite the problems. Mobile networks, for example, continue to grow and the new 3G networks are being rolled out according to schedule.

► The fact that interest in Ericsson is extensive was demonstrated by the attendance of 200 analysts and 150 journalists on September 4 at the full-day "Strategy & Technology Summit" event organized by the Company at its offices on St James' Square in London. This was the sequel to a similar gathering held for the American market in New York, in May this year. There will be another event for the Asian market in Hong Kong, to be held in November.

Naturally, the mood was somewhat subdued. The sector is in recession and the IT market is moving slowly. Ericsson's CEO, Kurt Hellström, and CFO, Sten Fornell, are the first to admit this. Sten Fornell explained that the market continues to develop sluggishly and that the only change that has taken place recently is that Latin America has also begun to fare poorly. The situation is thus worse than previously expected.

However, these are things that are primarily outside Ericsson's control. By now, both finan-

cial analysts and trade journalists understand that a line must be drawn between Ericsson and the market. The downturn in the industry is due to the general economic downturn, a partially mature and saturated IT industry and the current transition from 2G to 3G. This is the largest shift in technology ever, affecting all parts of the networks, as Torbjörn Nilsson, Ericsson's senior vice president for Marketing and Strategic Business Development, puts it.

Large providers will dominate

Torbjörn Nilsson also spoke about the restructuring of the sector, where the larger telecommunications providers will dominate. Accordingly, Ericsson will concentrate even more on these, offering total solutions, end-to-end service and open standards.

Within the field of mobile communications, North and South America, Africa and the Asia-Pacific region, all of which have a lower degree of

penetration than Europe, are judged to have extensive growth potential.

Ericsson's Executive Team maintained that the company has reacted both strongly and rapidly to the general economic slowdown. The efficiency program has shown results and the slimmer organization will soon be evident in the financial figures. But the crisis is not over yet and the program will proceed with the goal of achieving a strong organization, able to function optimally when the market speeds up again.

There is no doubt that the market will turn upwards again. It is true that GPRS has not started as quickly as previously envisaged, but it is up and running, the networks have been tested and are functioning, and there are several different phones available. Supported by GPRS technology, wap will also become a significantly more attractive application than previously when transmitted via the circuit-connected GSM network. In addition, the 3G networks are on their way – both the WCDMA systems and CDMA.

"The roll out of 3G is happening here and now", says Jan Uddenfeldt, Ericsson's senior vice president, technology. The previous hype around 3G, and the knocking it received as a result, have almost obscured the fact that 3G is, in principle, proceeding according to plan.

Ericsson leads the way in this, which affirms another of the company's main messages, the fact that Ericsson leads the technology and is the primary driving force behind developments from 2G to 2.5G and to 3G. All of this was backed

up by figures on market share and numbers of contracts. When the operator NTT DoCoMo starts up the first WCDMA system at the end of October, Ericsson will be on board as supplier of radio base stations.

Wise transition

In almost all cases, the transition to 3G will occur in conjunction with a wise expansion, claims Jan Uddenfeldt. WCDMA is actually an extremely cost-efficient solution. It can be added to GSM networks, with the same sites and an updated core network, and since many operators today use GSM, they will be able to gradually update their networks to 3G. End users will have dual-mode telephones for both GSM and WCDMA, so it will not matter if networks lack full 3G coverage from the start. WCDMA technology is also cost efficient in itself, measured in terms of the number of users per radio frequency, which means that fewer base stations are necessary.

Another solution that makes matters easier for operators in the initial phase involves shared networks. Ericsson offers different levels of shared networks. Either everything is shared, core and radio networks, except HLR, which is the address base for subscribers, or only the radio network, which corresponds to the largest portion of the cost, is shared.

Viewed logically, each operator is still independent. Ericsson was the first to secure a contract of this kind, in June this year with operators Telia and Tele2 in Sweden.

With regard to Ericsson's new technology platforms company for mobile terminals, Jan Uddenfeldt claimed that terminals are following a development similar to that in the PC industry and that a small number of companies will provide technology platforms with chips and software. However, there will be a large number of manufacturers of products with largely identical technology content.

"For the systems area, entirely different conditions apply. There, we are leading the way and it is not of interest to us to sell our platforms", explains Jan Uddenfeldt.

Test the new technology

The event was much more than a number of talks by senior management. Above all, it was a fine opportunity for journalists and analysts to meet central figures within Ericsson. A large number of interviews were conducted, television recordings were made and the entire event was broadcast via the Internet.

Jan Wäreby, executive vice president of Sony Ericsson Mobile Communications, also had the opportunity to present two new telephones, the T65 GPRS telephone for young people and the T60, which is intended for the American TDMA and CDMA markets. Head of Ericsson Research, Håkan Eriksson, presented what lies beyond today's technology, the fourth generation, for which research has already begun. Håkan Eriksson also explained that the new WLAN technology, that is, wireless local computer networks

with extremely high transfer capacity, does not represent a threat to 3G networks but rather a promising complement.

"You would need 10,000 WLAN base stations to cover just one 3G cell", he pointed out.

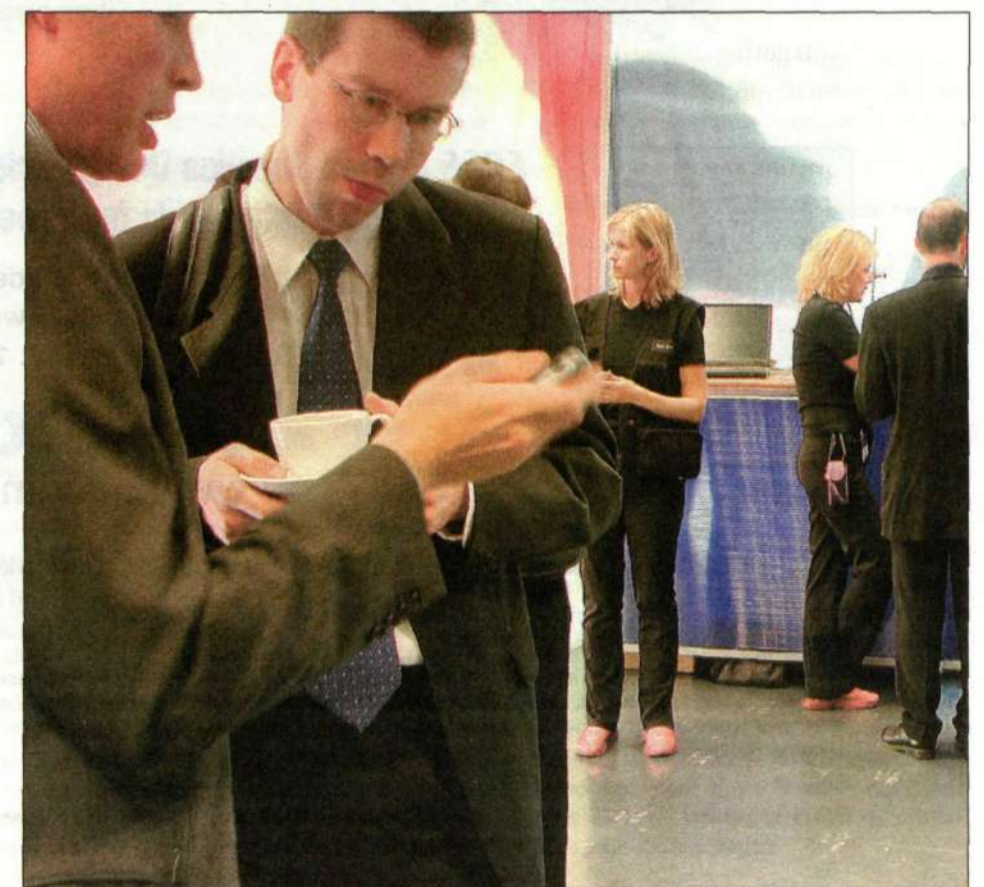
Ragnar Bäck, currently head of the Europe market region, but who will be taking over the Asia-Pacific region, spoke about globalization and emphasized how important the European market will be now that the large operators are expanding globally, since it is primarily European operators that are involved.

Finally, a much-appreciated feature was Ericsson's Mobile Internet Café, where participants could eat lunch and try out several of the new leading-edge services using GPRS, including the advanced SMS service with images, EMS and MMS, Instant Messaging with I-Pulse and the CommuniCam camera that allows you to use your mobile to take digital photos and to send them to friends and acquaintances.

Lars Cederquist
lars.cederquist@ime.ericsson.se

At the site given below, you can see the entire event in moving images and interviews with members of Executive Management on the internal television program 5minutes.

inside.ericsson.se

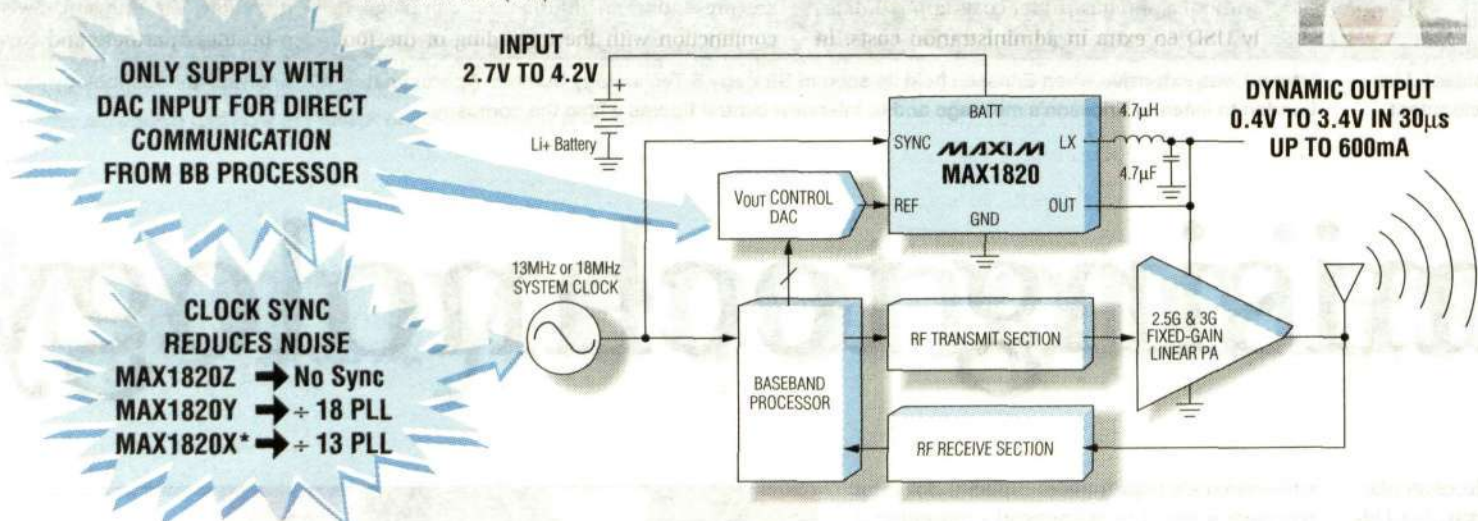
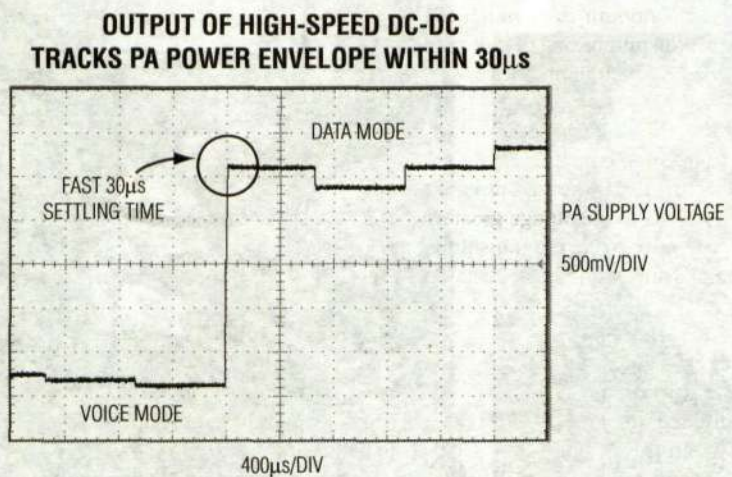
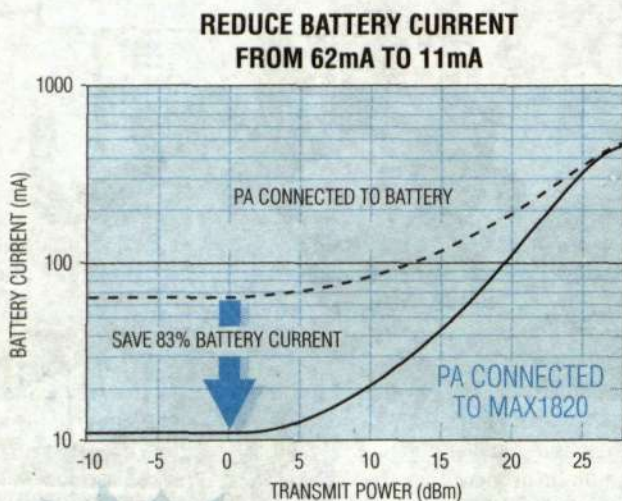


At the Mobile Internet Café, participants could test for themselves some of the new GPRS technology, for example SMS with pictures or the CommuniCam camera.

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Save millions with e-commerce

In these days of cost-cutting, great expectations are riding on Ericsson's web-based purchasing tool. During the current year, it is expected that it will become compulsory to use Click to Buy for the purchasing of office equipment and consultancy services within most Ericsson companies in Sweden. Click to Buy and EBP (SAP's e-commerce tool) will, in the long term, be the only e-commerce tools permitted in the company globally.

► Savings resulting from the use of Click to Buy are calculated to amount to as much as USD 150 million for the purchasing of indirect materials and services – including office, testing and measuring equipment, IT products, maintenance, et cetera – within the Nordic countries alone. In September, a new version of Click to Buy will be demonstrated around Sweden. The purpose is to encourage greater numbers of employees to make the transition from manual purchasing routines to Click to Buy.

"The reason that we are able to save so much using Click to Buy is that most purchases are limited to selected suppliers. In this way, we are able to ensure lower prices and improved conditions of delivery. Click to Buy also results in more efficient internal processes and smoother communication with suppliers", explains Barbro Falke-Almgren, purchasing manager at Corporate Sourcing.



Barbro Falke-Almgren
Ericsson leads European developments in

e-commerce tools for purchasing of indirect materials. With Click to Buy, it has already been possible to reduce the time it takes to process a purchase order from between eight to ten days down to two days.

Today, each invoice that arrives at Ericsson without a purchase order costs approximately USD 60 extra in administration costs. In most cases, this administration cost is higher than that of the actual product. With Click to Buy, the greatest part of this additional cost is eliminated because a purchase order is automatically connected to the invoice.

In addition, Ericsson has a large number of transactions, which represents an impor-

tant precondition for profitability through e-commerce.

"As is so often the case, people's habits are what put a brake on progress. We must be prepared to discard familiar purchasing routines and take on board new ones. This is why we are presenting an information campaign in conjunction with the upgrading of the tool. Our goal is for many more people to discover how easy it is to use the system. We also believe that employees' motivation for using the system will increase when they realize the savings they can achieve for the company", says Barbro Falke-Almgren.

Click to Buy is soon to be introduced in

Brazil and Japan and, during the autumn, EBP will be rolled-out in Western Europe. These two tools will, in the long term, be the only ones permitted within the company.

To ensure a dynamic range of products, Ericsson is collaborating with IBX, a joint venture between Ericsson, Swedish bank SEB, b-business partners and Novo Nordisk. The collaboration with IBX also enables extensive savings by sharing administrative costs with other large companies.

Sue Anne Moody

sue-anne.moody@lme.ericsson.se



Ericsson makes extensive savings using web-based purchasing tools. In the Nordic countries alone, savings of USD 150 million are expected. In September, a new version of Click to Buy will be launched, with the intention of increasing its use within the company.
Illustration: Kerold Klang

IBX makes purchasing tools attractive

To enable web-based purchasing tools, such as Click to Buy, to function, a product catalog that is linked to the supplier's order-handling system is required. The Integrated Business Exchange (IBX) company ensures that this is presented in a consistent and standardized manner to the user.

Naturally, the offering and prices are determined by Ericsson's purchasing department, which also prepares a framework agreement with certain suppliers, but IBX manages the ongoing contacts with subcontractors.

► "In telecom language, we can be compared with an AXE switch. We represent a fixed point, from which the contact network runs to the subcontractors", says Mats Oretorp, head of marketing at IBX.

He explains that it is impossible for both buyers and sellers to integrate their purchasing and ordering systems with each other, since the costs are prohibitive. Through IBX, Ericsson has electronic access to suppliers, and the suppliers, in turn, can reach other buyers, such as Volvo and the SEB bank.

"Ericsson's buyers are familiar with the demands generated by operations and the company cooperates with subcontractors to define products and prices. We then help suppliers to create electronic product catalogs that are customized for each buyer", he continues.

It is important that the users at Ericsson can compare products and suppliers so that they can make the correct decision when buying.

Until a year ago, Ericsson had its own department that took care of all contacts with some 60 subcontractors used by the company. Outsourcing this work to IBX was part of a strategy involving everything that did not belong to core operations.

IBX performs similar functions for several large companies. The customers' needs are similar and this is why it is cost-effective to let specialist companies such as IBX provide the services.

Enormous savings potential

Sven-Anders Stegare, IBX's key account manager for Ericsson, explains that all large companies have similar challenges with the coordination of indirect-material purchases. There is an enormous savings potential in purchasing from fewer suppliers. Often, various units within a company order materials independently of one another, thus missing out on the

opportunity to use the advantages that exist in being a large-scale customer. By only ordering through selected purchasing tools, such as Click to Buy or EBP, the companies make major savings. Purchasing tools also make administration more efficient and generate large savings in this area too.

"Within the industry, it is estimated that savings of 7-15 percent will be possible by steering purchases towards suppliers with whom framework agreements exist. The challenge is to find tools and ranges of products that are as attractive as possible. In all large companies, it takes a while to persuade employees to use purchasing tools", says Sven-Anders Stegare.



Sven-Anders Stegare

Global network

IBX is a member of a global network called Global Trading Web. In cooperation with corresponding companies throughout the world, it has established a common e-commerce platform and can offer local, regional and global product catalogs.

"If an employee at Ericsson in Brazil enters Click to Buy, he or she will have access to a locally designed product catalog, which one of our partners has designed. This can be compared to roaming between various telecom operators and it gives Ericsson even greater

FACTS/IBX

- Integrated Business Exchange was formed in summer 2000 by Ericsson, SEB and b-business partners. Today, these companies own IBX in collaboration with Denmark's Novo Nordisk.
- IBX has 50 employees and anticipates having approximately 75 by year-end.
- The company's customers include Volvo, SEB, Schlumberger and Ericsson.
- Companies that sell products through IBX are Canon, Dell, Compaq, Skanska, Kinna, Tibnor, and others.
- Björn Boström, who is responsible for product supplies at Ericsson, is a member of the IBX Board of Directors. The Chairman is Claes Dahlbäck and Hans Ahlinder is President.

economies of scale", says Sven-Anders Stegare.

He says that there is the possibility to develop electronic purchasing services. It will soon also be possible to take care of invoicing electronically.

"Ericsson has been developing e-purchasing since 1997 and is a pioneer in Europe. ABB, Volvo and other major Swedish companies have all been looking at Ericsson's system", adds Sven-Anders Stegare.

Jesper Mott

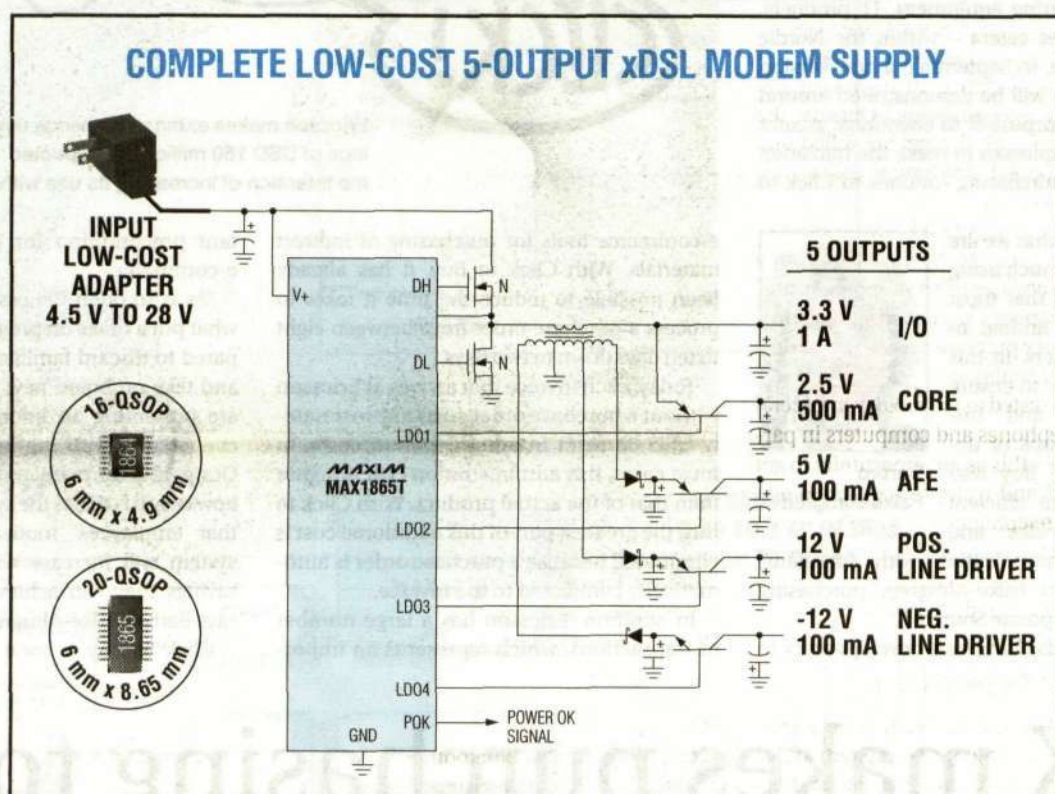
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Use the MAX1864 and MAX1865 power supply controller ICs to build the lowest cost xDSL and cable modem consumer premises equipment (CPE) power supplies. They integrate a high-efficiency step-down DC-DC controller and 2 to 4 linear regulator controllers to provide all the required voltages for CPE equipment. The current-mode step-down controller uses an external dual N-channel MOSFET to provide low-cost synchronous rectification for high efficiency and lower heat. To further save cost, no external current-sense resistor is required. Switching frequencies of 100kHz and 200kHz permit the use of low-cost magnetics and aluminum electrolytic capacitors. The linear regulator controllers drive inexpensive external bipolar junction transistors (BJTs).

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 - ◆ 2 Positive LDO Controllers
 - ◆ 16-Pin QSOP Package
- ◆ **MAX1865**
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 - ◆ 3 Positive LDO Controllers
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- ◆ **Step-Down Output: 1.25V to 5.5V**
- ◆ **LDO Outputs: ±1.25V to ±15V**
- ◆ **Power-OK Checks All Outputs**
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In an xDSL modem application, the MAX1865 provides low-cost supplies for the I/O, core, analog front end (AFE), and positive and negative line drivers. It fits in a small 20-pin QSOP package. All outputs can be adjusted with feedback voltage dividers.



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Mobile shopping is coming up roses

Easier, more secure and faster. These are some of the conclusions reached by store manager Alexander Östblom and computer consultant Anders Lindberg. Both have – from different vantage points – tested making payments with a Eurocard credit card via a wireless connection integrated into a mobile phone as part of a test program.

► It is morning at a shopping center on the outskirts of Stockholm. A few shopkeepers are bringing out goods to display in front of their stores. A café owner dries off his tables and cleans the espresso machine. Outside the flower shop carts with flowers are rolled out, the floor is mopped dry and a pallet with flowerpots is filled.

Alexander Östblom pulls the plastic off a few bouquets of flowers. He is one of five store owners at the Täby Centrum shopping center who have participated in a test to let 100 Eurocard holders make purchases using their Ericsson R520 GPRS telephones.

"I'm very interested in technology in general and in new telephones and computers in particular. I also saw this as an opportunity to get one step ahead and try out new technology. Paying with a telephone is something that I think will become commonplace within a year or two", says Alexander Östblom as he quickly ties up a bouquet of pink, red and yellow roses with his experienced hands.

PIN code used for payment

Eurocard Sweden and Ericsson have joined forces to install a Bluetooth test system at five stores at the shopping center – the flower shop, a clothing store, a beauty salon, a gas station and an electronics store.

With a Eurocard integrated into Ericsson's R520 GPRS phone, it is possible to make pur-



A flower store at a shopping center on the outskirts of Stockholm was one of five stores to participate in a test allowing Eurocard customers to pay using their R520 GPRS telephones.

Photo: Håkan Lindgren

chases via a wireless Bluetooth function incorporated into the cash registers.

A few keystrokes are all that is required in order to pay by mobile phone: three to access the appropriate menu, followed by a PIN code, which confirms the sale. Customers prove who

they are through a certificate, which, in future, will be placed either in the telephone's SIM card, the phone's memory or on a separate chip.

Anders Lindberg works as a computer consultant for several different banks. He was quick to express an interest when he received a

letter saying that Eurocard would be testing out a wireless payment system.

"I thought it sounded interesting to be able to try out a new telephone and try out the new functions available on it", he says.

Both Alexander Östblom and Anders Lindberg talk about the curious reactions they have received from other shoppers.

"One of the customers asked so many questions and was so focused on the R520 telephone that he forgot the flowers he had just purchased", says Alexander Östblom.

"When I paid for gas with my phone, numerous people were asking me: How did you pay? With a telephone? Can I do that too?" says Anders Lindberg, imitating the wide-eyed expression of curious onlookers.

Alexander Östblom could easily foresee installing the Bluetooth service into his cash register in the future, especially if it were integrated with the regular credit card reader.

More secure payment

"People always have their phones with them. And these transactions are more secure since users have to punch in their PIN code to confirm the transaction. Purchases are also faster since you aren't required to stand in line to register your purchase – you can do it from the middle of the store. Nor do you need to carry around cash, other debit cards or identification", says Alexander Östblom. Anders Lindberg agrees.

"If you're eating at a restaurant you would, for example, be able to pay directly from your table with your phone in a secure manner. These days, many people hand over their credit card to the waiter and ask them to charge the correct amount. You have no idea whether you're paying for everyone in the restaurant. A person would never hand over their wallet and just say: here, take what you need", he adds.

Ulrika Nybäck

ulrika.nybäck@lme.ericsson.se

inside.ericsson.se/5minutes->archive->shows->31juli

Phones offer added value

A hundred customers have tested payment at five stores using a Eurocard credit card integrated into an R520 phone. In order for the payment service to become a global service, various players within the market will have to agree on a security standard for identifying users.

► The recent test in Stockholm is one of several collaborations between Ericsson and the SEB bank, of which Eurocard Sweden is a part. The ability to conduct various banking services using an R380 telephone is a service that is based on previous collaborations.

"We are currently investigating the advantages and disadvantages that Eurocard customers and storeowners found in terms of

payments with a card integrated into a mobile phone. Our evaluation will be presented within a few days. Only then will we have the information necessary to make a decision as to whether to continue with this project or not", says Lars-Olof Gustafsson, who works on strategic business development at Eurocard Sweden.

Global security

In order for this form of payment to become popular, a number of other pieces of the puzzle need to fall into place. Storeowners will have to invest in Bluetooth hardware and software that will be installed in their cash registers. A large number of Bluetooth phones will have to be present in the market. And perhaps the most important issue to solve will be for the various financial players to agree on a global security standard – an effective system that shows who the user is. That issue is currently being discussed in various forums, in

which both Ericsson and Eurocard are involved.

Peter Nilsson is a sales representative for SEB Card Services at Ericsson in Sweden. He explains what is required for payment by telephone to become popular with a broader audience.

"Paying by phone has to be made easier than paying by card. We also have to expand this solution. Storeowners should, for example, be able to send out various offers to their customers when they make their purchases in the store, and customers should not have to go through a check-out once they are finished shopping – goods should be registered as soon as a customer puts them into their shopping cart".

More convenient

Both Peter Nilsson and Lars-Olof Gustafsson believe that the general public will utilize these kinds of payments within approximately two years.

"If we are going to utilize new technology to deliver the same services that we do today, it will have to be perceived as being more convenient, faster and more secure", says Lars-Olof Gustafsson.

Discussions with different companies

Peter Nilsson does not believe that Ericsson will be developing payment solutions for stores in the future, but that the company will supply the technology platform and system software. He also says that Ericsson is involved in discussions with a number of different companies that are interested in similar payment solutions.

"Now that we have demonstrated that these technological platforms are viable, we have to ensure that they will be transformed into a commercial product", says Peter Nilsson.

Ulrika Nybäck

Vacancies

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ERICSSON THAILAND, BANGKOK

GSM System Specialist

The GSM System specialist is responsible for promote GSM products and solutions towards the Customer, and to develop the local product knowledge of both Customer engineers and Account staff.

● Major responsibilities: Determine and analyse business opportunities for Ericsson and PU's, and the Customer, and prepare specific product offering tailored to the customer needs. Manage and maintain CME 20 Radio & Switching Product knowledge. Prepare and make presentations to other local Ericsson staff, and the Customer on GSM products updated. Provide PU's with regular updated information on the local market conditions. Advise customers on the impacts of new product packaged to their GSM systems. Support KAM and Sales Department Manager to plan and promote technical solutions to meet the customer's requirements and Ericsson strategic goals. Support and encourage colleague to "networking". Undertake other duties as requested by the KAM.

Competence Requirement: GSM system in details Road Map toward GPRS and Edge products knowledge Networking with PU

Qualification: University degree or above-major on Telecommunication or Electrical Engineering. At least 3 year product management experiences on Mobile System Good technical knowledge in GSM System Able to communicate concisely in writing and speaking in English High Presentation Skills

Contact: Kvanchanok Changtongdee, People & Culture Office, Kvanchanok.Changtongdee@ect.ericsson.se

ERICSSON SYRIA

Ericsson Syria is looking for a talented motivated person to engage in and fill the position of:

Technical Manager (Mobile Systems/GSM)

● The applicant should have a strong customer focus and a competitive technical background in mobile systems, particularly GSM. The successful candidate shall work under the Key Account Manager to propose technical solutions for the customer's network/ market. He should be able to coordinate work with the product units, designers, product managers, support organization and project manager in order to recommend and implement the best possible solutions and customer adaptation. He will help the KAM in sorting out and finalizing commercial and support issues as related to new products, equipment hardware/ software/docware, features, services, etc..

The applicant is required to be a University Graduate and should have at least 7-10 years of technical experience in the telecommunication field and Mobile Systems. English fluency is essential. Some travel may be needed.

Application: Raed.shanaa@tos.ericsson.se, Office: +963 11 611 8510, Mobile: +963 94 222 060

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NEXT CHALLENGE-NIGERIA

Ericsson has 3 new GSM customers in Nigeria. We therefore enhance the KAM organisation in our local company LM Ericsson (Nigeria) Ltd. Following positions are open and on long-term conditions based in Lagos.

Key Account Managers

● As a Key Account Manager you will be responsible for the establishment of the long term partnership between the customer and Ericsson and fulfilling the customer's high expectations. You will lead the Core 3 marketing and sales team and ensure the product supply to our customer. Your major tasks will be to build the relation with the customer, create and maintain account plans, meeting or exceeding order booking objectives, sales budget and forecasts.

Preferably you should have a M.Sc. in Engineering and you should have at least five years working experience and desirably 4 years with cellular communications and preferably with GSM experience, an ability to build excellent relations and drive for results.

Technical Managers

● As Technical Manager you will be responsible for the solutions we propose and provide to the customer. That includes technical discussions with the customer, product presentations, lead the work for preparation of technical specifications and production of technical documentation, all in close teamwork with our marketing and sales organisation.

For both positions we need persons whose profile shows that they have earlier experience as managers and leading teams, outgoing, independent and self-motivated with strong interpersonal and communication skills. They should have a university degree, preferably M. Sc. or similar. Good written and oral skill in English.

Contact: Hans Olander, Business Manager MTN & NITEL, +46 8 404 6942 Goran Soderholm, GAM MTN, +27 83 212 1533 Gustav Magnusson, Business Manager ECONET, +46 8 508 76640 Hans-Olov Rauman, GAM ECONET, +27 83 212 5521 Gote Hedblom, Human Resources, +234 1 269 0249, ECN 823 325. Application: LM Ericsson (Nigeria) Ltd. E-mail: gote.hedblom@era.ericsson.seL.M.

ERICSSON A/S, DENMARK

Your future in a new world. You will work in the borderlands to an entirely new world and play a part in shaping the communications solutions of the future. You will develop your own job and career opportunities. Only you determine the limits to your own challenges.

Configuration Manager

● Configuration Manager role in large international SW projects. You will become a central part of the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

Your role is to ensure that the configuration activities are co-ordinated, planned and executed in all parts of the project. This includes ensuring that CM environment are available, product structure is defined, baseline is defined and tracked, changes to the projects is controlled and communicated and CM status is reported to the project managers. You will also be part of defining new requirements to the CM environment to ensure that it runs as optimal as possible.

You are a trained engineer, technician, computer scientist, or have a related technical degree – combined with experience with Configuration Management and AXE10.

Your background has deepened your existing familiarity with the CM processes and CM tools used in large development projects – and considerably improved your very extensive ability to command a broader perspective and structure highly complex processes.

On a personal level, you are very extrovert and have excellent communications skills. You use these qualities to establish and improve efficient co-operation across national borders and cultural differences. Accordingly, you are also proficient in spoken and written English. If you are not already familiar with the various relevant tools, we will provide you with all the knowledge that you require.

eMatrix Method & Tool coordinator

● Key co-ordinating role in large international SW projects. You become a very central part of the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

Your specific role is to make sure that the development projects uses Ericsson version of eMatrix in a uniform way regardless of nationality and geographical location. Accordingly, you assess and choose the appropriate methods for each project. As part of this, you also decide what possible retraining is necessary and who will deliver the selected retraining – should you develop internal courses or hire expert assistance? Do we already have the required software, or is it necessary to acquire new software? And finally, who should be retrained when?

You are a trained engineer, technician, computer scientist, or have a related technical degree – combined with experience with SW development and project management. Your background has deepened your existing familiarity with the processes and methods used in large development methods – and considerably improved your very extensive ability to command a broader perspective and structure highly complex processes.

On a personal level, you are very extrovert and have excellent communications skills. You use these qualities to establish and improve efficient co-operation across national borders and cultural differences. Accordingly, you are also proficient in spoken and written English. If you are not already familiar with the various relevant tools, we provide you with all the knowledge that you require.

NDC DMN-AXE PROJECT OFFICE

The challenge for a group manager who wants to make a difference

The telecommunications networks are changing rapidly in order to adapt to the new service offerings such as Broadband and Fast Internet over ADSL and Ericsson is one of the major players on this market. In order to adapt to the new services numerous requirements are being set on the networks. Most important is the ability to combine different technologies and to control the network.

The Global Product Centre (GPC) in Denmark is an important part of Ericsson's product development organisation. The "NDC DMN-AXE Project Office" is responsible for running total Wireline AXE projects. The total AXE project is a combination of many sub and associated projects located around the world employing more than 1000 people.

Our projects start at TGO and end at TG5 including design, test and industrialisation of the complete AXE.

Group Manager

● We are looking for a group manager with documented experience, who is ready to take on the challenge of leading a group of dedicated people working with Method, Tools & Training, Configuration Management, Signal co-ordination and simulated test environment. The job also includes taking initiatives to improve the way we are working in very large projects.

You must be able to handle stress situations and create team spirit. Your communication abilities must be excellent and you should be able to communicate fluently in English.

Signal Co-ordinator

● Signal Co-ordinator role in large international SW projects: You will become a central part of the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

To be able to control the development of very big systems we have divided our SW programs into different blocks. Your role is to ensure that the signals (interfaces between the blocks) are co-ordinated. By means of our state of the art tool (SigmaTool) you will define the overall Target System with the focus on defining responsibility for every signal in the system. You will plan and track progress of signal co-ordination in the different parts of the project. You will also be a leading part of optimising the signal co-ordination processes.

Engineer, technician, computer scientist, or related

● You are a trained engineer, technician, computer scientist, or have a related technical degree – combined with experience with AXE10 development. Your background has deepened your existing familiarity with the SW processes and SW tools used in large development projects – and considerably improved your very extensive ability to command a broader perspective and structure highly complex processes.

On a personal level, you are very extrovert and have excellent communications skills. You use these qualities to establish and improve efficient co-operation across national borders and cultural differences. Accordingly, you are also proficient in spoken and written English. If you are not already familiar with the various relevant tools, we will provide you with all the knowledge that you require.

Simulated Test Environment co-ordinator

● Simulated Test Environment (STE) co-ordinating role in large international SW projects: You will become a central part of the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

Your role is to make sure that the simulated test environment is in place for the development projects. The STE consist of a number of test tools and components representing different simulated HW products. Your job is to make sure the project requirements to the STE are identified, that requirements for new components are analysed and prepared, that components are developed and tested and that the project receives support for STE. Additionally it is expected that you will be an ambassador for STE throughout the Ericsson organisation.

ECC Method & Tool coordinator

● Key co-ordinating role in large international SW projects: You become a very central element in the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

Your specific role is to make sure that the development projects uses Ericsson version of ClearCase (ECC) in a uniform way regardless of nationality and geographical location. Accordingly, you assess and choose the appropriate tools and methods for each project. As part of this, you also decide what possible retraining is necessary and who will deliver the selected retraining – should you develop internal courses or hire expert assistance? Do we already have the required software, or is it necessary to acquire new software? And finally, who should be retrained when?

Engineer, technician, computer scientist, or related

● You are a trained engineer, technician, computer scientist, or have a related technical degree – combined with experience with SW development. Your background has deepened your existing familiarity with the processes and methods used in large development methods – and considerably improved your very extensive ability to command a broader perspective and structure highly complex processes.

On a personal level, you are very extrovert and have excellent communications skills. You use these qualities to establish and improve efficient co-operation across national borders and cultural differences. Accordingly, you are also proficient in spoken and written English. If you are not already familiar with the various relevant tools, we provide you with all the knowledge that you require.

Contact: Kim Mahler on + 45 33 88 31 67. Application marked "50018026": nytjob@ericsson.dk or to L.M. Ericsson A/S, Sluseholmen 8, 1790 Copenhagen V, Denmark, Att. Human Resources.

Project Administrator

● You will be the Project Managers right hand and the center of the communication flow in the project. You become a very central element in the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

As a Project Administrator you have a key-position and you will support the project leaders and other project members with a variety of administrative tasks. You are responsible to update the project libraries and the project WEB in order to give your project members easy access for the project status. You will organize meetings, Kick-Off's and other project arrangement. You will write minutes from meetings and you are skilled in proofreader and help us in different English texts. You will also follow-up

on project budget and other administrative tasks that help create an overview of the project.

The candidate we are searching has a solid background within administration probably a graduate in correspondence, business administration or secretarial education. You have sense for economics and good computer skills and experience within MS Office.

You are open, inquisitive and structured in handling your work tasks. You have an overview over complex structures and will deliver your work in time – also in stressed situations. It is important that you have good social skills both in co-operation and communication with other people, since the position includes frequent contacts in a large international organization. Our candidate is fluent in English verbally and in writing.

Project Controller

● As Project Controller you have a key role in an international project organization. You become a very central element in the Danish Project Office, which manages and co-ordinates Ericsson's large and international SW development projects for AXE telephone exchanges. The solutions are developed simultaneously in many development divisions in different countries.

As a Project Controller you are a part of the total project management team and will work closely with the project leaders with the project financial control routines as planning and control. An important part of the job is to establish an economy process within the project and you have the overall responsibility to ensure that the financial management of the projects is efficient, well coordinated and organized to provide maximum support to the total project management and its Steering Committee for the fulfillment of the financial project objectives. You will report the status of the project economy mainly to the project management.

We are looking for someone with bachelor of commerce qualifications (HH) or knowledge of accounting. You have knowledge in the MS Office and as we are working in international organization, our candidate is fluent in English verbally and in writing.

You are open, inquisitive and structured in handling your work tasks. You have an overview over complex structures and will deliver your work in time – also under pressure. The job involves contact with a variety of people and good communication skills and the ability to work with others are therefore highly valued. The person we are looking for is good at combining independent work with teamwork.

Contact: Liisa Uitti on + 45 33 88 37 96. Application marked "50018029": nytjob@ericsson.dk or to L.M. Ericsson A/S, Sluseholmen 8, 1790 Copenhagen V, Denmark, Att. Human Resources.

ERICSSON INTERNET APPLICATIONS

The Network Solution division's mission is to contribute to our customer's success by creating timely and competitive communications solutions and services. We are responsible for the Preparation of product business plans for the Philippine market. We define network concepts and technical bid strategies, develop the technical solution and design during the tender phase. We also perform engineering of the offered networks. Are looking for a job with exciting work tasks in a warmer climate? Keep on reading.

Prepaid Solution Manager, Philippines

● We are now looking for a Prepaid Solution Manager. As a Prepaid Solution Manager you will work for

the Product Development Unit (PDU) Prepaid Solutions within the Core Unit Internet Applications, but will report to the Network Solution Division head.

You will work closely with the Account team for customer(s) in the Market Unit in positioning solutions in the IN/Prepaid area and in supporting related project(s) in the execution phase.

Your main tasks will be to: Support the various ongoing prepaid solutions initiatives in terms of sales support by e.g. working with technical offers to the customer in the prepaid solutions area. Setting and managing the expectations of the customer and influencing the customer in crystallizing their needs for prepaid solutions. Facilitate the successful execution for various prepaid projects. Advise the Technical Manager and the Account team of specific product roadmaps for the customer and work closely with them and the customer to set out their requirements for new features and functions. Work with various Product Units, primarily PU-PAY, to ensure that specific commitments for solutions are derived and met with.

As applicant you have expertise in the area of IN and, specifically, Prepaid solutions. You have a well-established contact network within PU Prepay. You have experience from direct exposure to PPS product/solution management.

It is an advantage if you have experience working in a Market Unit and that you are flexible and can look for solutions across different Product Units. Have you already decided to apply?

Contact: Govindan Raghavan, +63 2 635 1839. Application: Prepaid Solution Manager, cool.jobs@eip.ericsson.se

LM ERICSSON INTERNATIONAL AB REPRESENTATIVE OFFICE NICOSIA, CYPRUS

Account Manager

● We are seeking a person, for local employment in Cyprus, to be the Account Manager and overall responsible for one of our customer accounts.

You will in addition have a role in various projects, which includes Commercial responsibility in preparing offers together with our Technical and Project responsible persons at RCY. With this in mind we believe you have a background in Marketing and Sales with good knowledge of either Ericsson's Mobile or Multi Service Networks, preferable both. You are required to be fluent in both English and Greek.

The Ericsson office (RCY) in Nicosia, Cyprus is a small sales and support office with only 7 people so we rely very much in being highly flexible when it comes to the spectrum of tasks to work with. A good contact network within Ericsson worldwide is necessary since we rely much on support from primarily Sweden and Greece.

The local PTT, CYTA- Cyprus Telecommunications Authority- have since 1994 a GSM System in operation where Ericsson is the sole supplier for the core parts. Competition is however increasing for external systems and nodes.

CYTA's Fixed Network consist today of infrastructure from both Ericsson and Alcatel where we need to further promote newer solutions like the ENGINE concept from Multi Service Networks. Cyprus has applied to join the EU by 2003 so by that time the telecom market will be de-regulated.

Contact: Ola Möller, General Manager ola.moller@rcy.ericsson.se or Anders Ekström: anders.ekstrom@rcy.ericsson.se, Office number +357 2 591 888, Fax +357 2 351 443, LM Ericsson International AB (RCY), Representative office Cyprus, P.O. Box 245221300 Nicosia.

ERICSSON BANGLADESH

Ericsson in Bangladesh has achieved a unique position by being awarded contracts with all 3 GSM operators.

There is a huge potential for GSM Systems in Bangladesh with a large population and an underdeveloped fixed network. It is expected that the number of mobile phones will exceed the number of fixed lines by the end of 2001.

We now need to further build our relationship with our customers and are looking for candidates for the following positions.

KEY ACCOUNT MANAGER

● We are looking for an experienced manager capable of handling commercial negotiations in a multinational environment. Your responsibilities will include building of a good relationship with the customer, identifying new opportunities, submitting commercial offers, negotiations and customer presentations. You will also be responsible for introducing new technology ie GPRS and 3G.

The KAM must have at least a 5 years experience of GSM sales with a proven track record. You must also be capable of handling a customer in a multicultural environment. Excellent analytical, relationship building and negotiation skills are necessary as well as fluent English.

TECHNICAL SUPPORT MANAGER

● The Technical Support Manager will be responsible for the following staff/functions:

Logistics

Technical Managers with profile as per below Support Engineers

Ericsson has employed local staff that is currently under training. Your job will be to ensure that our staff gets appropriate training in the most efficient way. In the daily work you will also coach and assist our support staff.

The Technical Support Manager must have a very good technical background on Ericsson GSM systems. In your previous assignments you have worked as a support manager. Thus you are capable of transferring your knowledge how a professional support function can best serve our customers. You will have frequent contacts with our customers as well as contacts with various Ericsson organisations. The Technical Support Manager reports to MD.

TECHNICAL MANAGER

● We are looking for an experienced technical manager who can support the KAMs in driving the sales and marketing activities; provide strategic product information and system proposals. Another important task is to advise our customers in their expansion plans by providing a good technical solution.

The technical manager should have a very good technical knowledge of GSM systems. It is also valuable if you have experience from working with new products as GPRS, WAP, IN and DATACOM. You can work independently, take initiatives and communicate well with others. You must have an extensive network within Ericsson as well as a good commercial understanding. We expect you have been working in a similar position for several years.

Contact: Mats Bosrup, Managing Director, +880 17 524880, mats.bosrup@bbd.ericsson.se

ERICSSON RADIO SYSTEMS AB, KISTA – BSS ENVIRONMENT & TOOLS

We are responsible for operation and maintenance of the test environment used by the integration and verification projects for the AXE based GSM 900, 1800 and 1900 BSS systems. GPRS, Datacom, EDGE and

the migration towards 3G (UMTS) system are some of the big challenges for the coming years.

We have an open position for a TCM Engineer in BSS Architecture Management, Test Environment & Tools. You will be joining an enthusiastic and competent team in a dynamic working environment. Competence development and further education is prioritized and appreciated within the group.

TCM Engineer

● The main tasks for this position is hardware and software installations/upgrades, trouble-shooting activities in the MSC, BSC and BTS area and to keep our STP in a good condition.

You will also as part of the TCM team co-ordinate TCM-work towards other units that are using our test plant, provide technical advice and assistance to testers and managers and transfer knowledge to less experienced team members. Curiosity, interest and the ability to learn about new features/functions and new HW/SW is important.

The candidate should have worked with TCM related work activities and preferably within a support or verification department. Special consideration will be given to candidates who also have knowledge of the other nodes within the GSM system, such as OSS, APG40 and GSN.

The candidate should possess strong problem solving and analytical skills, be quality minded, have ability to perform multiple tasks, have good communication skills and be a team player.

Contact: Marianne Bolinder - Section Manager, Test Environment & Tools, +46 8 585 324 35, E-mail: marianne.bolinder@era.ericsson.se. Send application to: Elisabet Grahl – Human Resources, Radio Network Systems elisabet.grahl@era.ericsson.se

C.A ERICSSON, VENEZUELA, CUSTOMER SERVICES: NETWORK SUPPORT

CEV (Compañía Anónima Ericsson), the Market Unit in Venezuela, was established more than 50 years ago. Ericsson is the leader supplier in Venezuela for TDMA, Wireline and IN Networks, having as Customers the main telecommunications operators in the country. The company is based in Caracas.

Our ELS is responsible for providing first line support towards the various networks and systems that have to-date been sold to at least three customers in Venezuela. Your role, as Senior Support Specialist in our Switching & IN Support group, involves close and daily co-operation with our customers as well as various Ericsson support- and design units worldwide. The role covers the normal Network Support activities like CSR/TR Handling, Emergency support and SW updates/upgrades. The ELS plays also a very important role in demos, testing and integration activities.

Senior Support Engineer for Switching & IN

● Substantial experience in Network Support activities towards AXE Switching and IN for Wireline Systems, is a requirement. You must have advanced SW troubleshooting experience, good communication skills and be willing to transfer competence to the local staff. Knowledge of AXE Switching for Mobile Systems (TDMA, CDMA) will be highly valued. Having knowledge of Spanish is desired but not mandatory. You must have the right mindset and customer-focus that enables you to provide the correct, contracted level of support to our customers.

Contact: América Avariano, Director People and Culture, america.avariano@cev.ericsson.se. +58 212 2730205, Carlos Ferreira, Local Support Director, carlos.ferreira@cev.ericsson.se, +58 212 2730485

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Red worm causes havoc

Over a period of seven days, Ericsson succeeded in defending itself against 123,000 attacks by CodeRed. Then, one variant managed to get past the company's firewalls and is still in the system.

Ericsson maintains a constant vigil against viruses. The company has three large computer centers around the world – in Stockholm, Dallas and Kuala Lumpur. Two of the Global IT Security heads that keep track of security threats are Thomas Englund, based in Stockholm, and Sven-Olof Olsen, based in Dallas.

Ericsson users are the front line against virus. Suspicious computer activity is reported to Global HelpDesk. Then, if things get worse, Problem Management takes over. If a virus is especially troublesome, a sort of IT Superteam meets in what is known as the "War Room," located in southern Stockholm.

"We have succeeded with filters and distributing signature files of viruses", says Thomas Englund.

"However, CodeRed spreads via servers, not by e-mail, so it's been especially difficult to combat. Once it has entered into Ericsson's system, it places a back door on the victim server and the cure is re-installation of the server".

123,000 attempts defeated

Englund says action was taken immediately to protect the most vulnerable environment: the extranet. A patch was provided by Microsoft as soon as the CodeRed Worm started making its way into servers around the world in June. Some 123,000 attacks were defeated in seven days. But three weeks later, a new and nastier variant of the CodeRed Worm infected Ericsson's system.

"We are establishing an expert support

function and an excellent means of communicating procedures and alerts to the Ericsson community when a virus is doing damage. An antivirus page is maintained on Ericsson's intranet, where incidents and updates on current 'battles' are reported".

Users will hardly notice

Despite the patch, CodeRed made its way inside Ericsson's firewalls and is still present. Englund continues to work with his Global IT security team to activate patches and remind people to be wary.

Users will hardly notice that they have been infected by CodeRed since it does no instant harm as some previous viruses did. Instead it opens up the victim computer for malicious activities at a later stage when an intruder may take control by the back door program. Virus infected computers or network segments with virus infected computers can be repaired by Ericsson Global IT Services.

"Luckily, very few viruses have had major business impact so far".

Dodi Axelson
dodi.axelson@qim.ericsson.se

itservices.ericsson.se/operational-status/problems/index.html



Photo: Ecke Küller



Virus at the workplace can be hard to get rid of. CodeRed is a virus that succeeded in gaining entry to Ericsson. Global IT Security is currently hard at work trying to purge Ericsson from the virus. The Global Command Center is the front line against viruses: technicians there help you when you call to report troublesome computer activity. Illustration: Kerold Klang

Protect yourself against unwelcomed guests

"We have viruses that should have been dead and extinguished 10 years ago", admits Sven-Olof Olsen, who's worked within Ericsson's Global IT Services division for 15 years and now heads the department.

Sven-Olof Olsen receives a list of alerts via anti-virus software, which tells him who is being infected and by what.

"I get 10,000 alerts every day – some on a virus called Form, which was created in 1984. I don't know where we get it from. I'd be happier if the figure was only 1,000 per day". Carelessness could be part of the problem.

It's important to make use of the protection that exists. Olsen compares virus protection to automobile safety.

"You're not only protected by having a seat belt, you have to use it. And if you have a seatbelt on, but no brakes, you're still in trouble. You have to use everything together", explains Olsen.

This means that you must not download software not authorized by Ericsson Standard Office Environment (ESOE). ESOE includes anti-virus software, and IT managers maintain the most current version of the software. Use security patches when they are offered by Global IT Services. Be wary of attachments coming from unknown or odd-sounding sources, and look carefully at suffixes.

"If it has a double suffix, such as txt.vbs or jpg.vbs, the chances are it's a virus", Olsen cautions.

If you experience any suspicious activity

on your computer, call the helpdesk right away. Furthermore, if you get an e-mail from someone at Global IT Services (GIS) with the subject Virus on your computer, Sven-Olof Olsen urges you to take it seriously.

"Don't ignore the alerts", he says. "If you do, you could infect the whole network. Your local helpdesk can help you disinfect your machine. Virus writers are getting smarter with each attack. Ultimately, proper protection is your best chance", says Sven-Olof Olsen.

Dodi Axelson

False loveletters remembered "with horror"

As recently as 1998, Ericsson did not have special routines or a virus-fighting team. That's all changed now, with the Problem Management and Virus Security Teams, located in Älvsjö and Dallas.

The names of the troublemakers disappear from memory, but damage done is easily recalled. Viruses are never remembered fondly.

"The ones we remember with horror are the first two that really caught us unaware", says Martin Kaup, Problem Manager at Älvsjö, "and those were Melissa and the I Love You virus".

Though hackers have been writing viruses for 15 years or longer, Ericsson's other virus guru, Sven-Olof Olsen in Dallas, agrees with Martin Kaup that Melissa was a watershed.

"Basically the virus started spreading on Friday. Ericsson didn't have a clue until Monday morning, and it took until four o'clock in the afternoon to convince people that we had

a problem. By then it was too late", recalls Sven-Olof Olsen.

Martin Kaup adds: "Melissa erased material on affected PCs – on both clients and servers. Subsequently, everything had to be shut down before it could be restored. We worked for a week without sleep".

Melissa and I Love You were so-called "mail aware" viruses: they're caught and spread via a mail function, most often Microsoft Outlook. "99 percent of virus writers target Microsoft", says Martin Kaup.

The recent CodeRed Worm, however, is distributed via the Web. Ericsson remained uninfected for three weeks, then succumbed. "Since all our lessons learned from Melissa and I Love You are routine and technical solutions such as filters taking care of mail carried viruses, this one had a greater impact".

Martin Kaup estimates that at least 15 times per week, a new virus attempts to get into the system. With 120,000 people logging on at various times, from various locations, to the Ericsson network, it's not difficult to imagine that you will be affected by a virus sooner or later.



Martin Kaup

Dodi Axelson

FACTS/GLOSSARY OF VIRUSES AND HACKER TERMS

Back Door: A feature built into a program that allows the program designer to gain full or partial access to your system.

Denial of Service: A means of attack against a computer, server or network; the attack is either an intentional or an accidental by-product of instruction code which is either launched from a separate network or Internet connected system, or directly at the host. The attack is designed to disable or shutdown the target of the

attack. (Especially relevant regarding early versions of CodeRed.)

EXE File: EXE, or executable, files are programs that do things on your computer. For example, tank.exe may be a tank game. Files with different extensions, like .dll, are often support files for a program. EXE files are commonly infected by viruses. After infection, the virus is run each time the program is run.

Hoax: This is usually an e-mail that warns of a non-existent virus that does more harm in spreading fear.

Payload: The code within a virus that is not part of detection avoidance replication capabilities. The payload code may cause text or graphics to appear on the screen, or it may cause corruption or erasure of data.

Trojan Horse: A program that either pretends

to have, or is described as having, a set of useful or desirable features, but actually contains a damaging payload. Most frequently the usage is shortened to "Trojan." Trojan Horses are not technically viruses, since they do not replicate.

Worm: A virus that usually replicates using computer networks, such as via email or IRC (Internet Relay Chat.)

Source: www.mcafee2b.com/na/common/avert

Victim learned unforgettable lesson

Though Ericsson's Standard Office Environment contains protection against viruses, occasionally one slips through. Product Marketing Manager Rob Wolff at business unit Multi-Service Networks and Data Backbone just recovered from a messy virus experience.

"My Outlook account sent an enormous number of e-mails to three or four people who had messages in my Inbox. The virus infected a file that caused Outlook to send the same message again and again with itself attached and tried to coerce

others to open it up and infect their computers as well", he describes.

Rob Wolff says he was not badly affected, but he did lose a day and a half of work, getting the computer fixed and virus free.

"For some colleagues it may have been worse as they were getting a lot of e-mails", he admits.

Technicians had to wait for the anti-virus company to develop a fix for the virus Rob Wolff's computer caught. Overall, however, he's relieved there wasn't more damage done.

"Besides the potential for losing information, I could have lost a lot of time getting my computer 'right' for me again, customized with plugins, programs, and such. It would have severely affected my work for weeks on end".

The virus Wolff got was called W32.Badtrans.13312@mm. He cautions others:

"Update your Norton Anti-virus software always".

Dodi Axelson

FACTS/LIST OF LINKS REFERRING TO VIRUSES AND UPDATES

- | | |
|--|--|
| Symantec Security Updates | Computer virus myths, hoaxes and urban legends |
| www.symantec.com/avcenter/vinfodb.html | www.Vmyths.com/ |
| F-Secure Computer Virus Info Center | Anti-Virus Website Ericsson Internal |
| www.f-secure.com/v-descs/ | antivirus.ericsson.se/ |
| CERT Coordination Center | Home Network Security |
| www.cert.org/ | www.cert.org/tech_tips/home_networks.html |

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For more information and registration: http://inside.ericsson.se/sourcing/pam/dev_tools/SolutionsExpo

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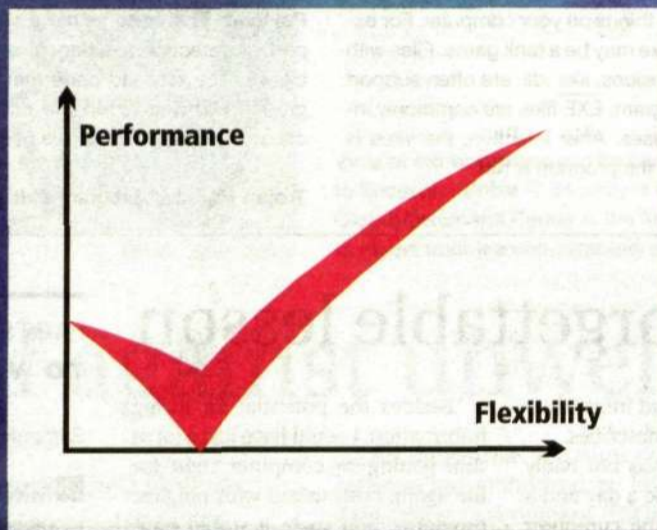
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Ericsson Village brings employees together

Ericsson Village, the new headquarters for North America, opened last week amid a lively and colorful ceremony in Texas. More than 1,000 employees gathered to usher in the Ericsson Village era.

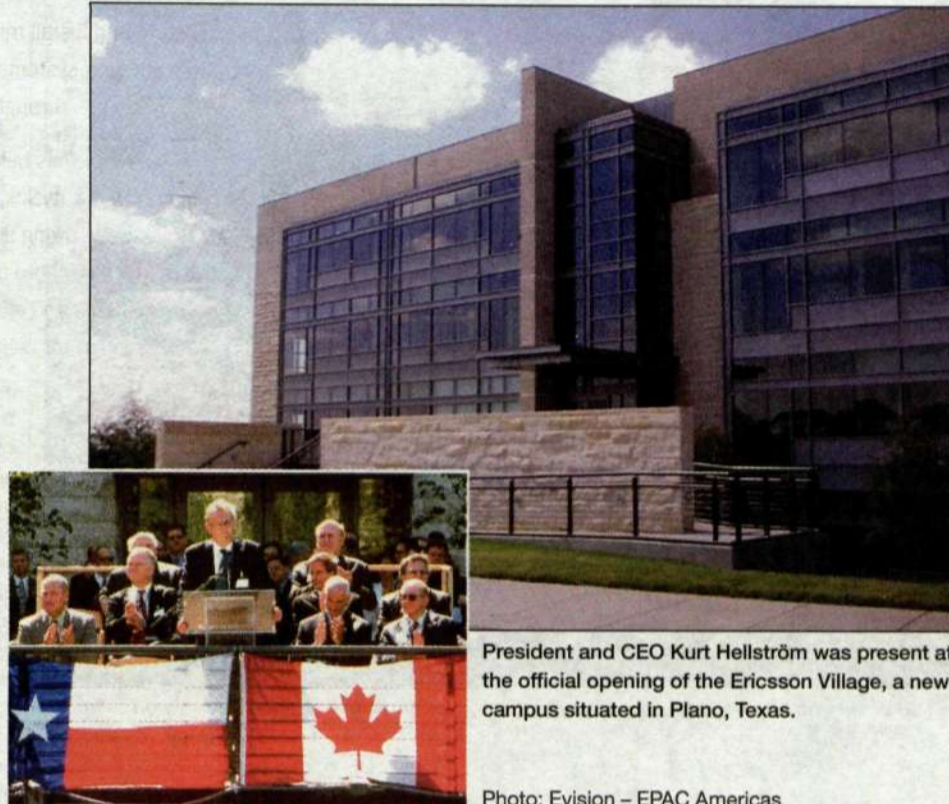
► President and CEO Kurt Hellström, COO Per-Arne Sandström and incoming President of the North American Market Unit Angel Ruiz, were all present at the official opening of the Ericsson Village. The aim of the new campus, situated in Plano, Texas, is to gather all of Ericsson's activities in the area under one roof. Consolidating the sites in the area will facilitate communication and create a more efficient organization.

Master of Ceremonies was John Giere, vice president of marketing. He felt honored to be a part of such a momentous occasion in Ericsson's history.

"It was a nice event, and a great chance for Ericsson to highlight our positive presence and image in the community", he says, pointing to the fact that the ceremony was attended by the mayors of Plano and Richardson, and US Representative Sam Johnson.

Ericsson Village will be the workplace of some 1,500 employees, and the move in to the new building has already started.

"The reaction from employees has been overall positive. The atmosphere in the building is open and inclusive, and it reflects Ericsson's commitment to creating an innovative work environment", says John Giere.



President and CEO Kurt Hellström was present at the official opening of the Ericsson Village, a new campus situated in Plano, Texas.

Photo: Evison - EPAC Americas

When the opening ceremony was over, employees, guests and the media were invited to visit the new Ericsson Experience Center which is a showcase of the company's end-to-end technologies. Visitors could also take

part in the third annual Employee Awareness Fair, where internal and some external groups exhibited products and services designed for employees and their families.

Tonya Lilburn
tonya.lilburn@lme.ericsson.se

Earning credits on Ericsson courses

Senior business executives can now earn university credits for participating in courses given by Ericsson's experts.

► Beginning in the current academic year, Ericsson Education's training unit for business and customer relations will be offering university-level courses aimed at senior business executives.

The new program is the result of an agreement between Ericsson Education Europe and Stockholm University. Seven different courses will be offered, in subjects including management, finance and negotiation strategies, all linked to the telecommunications and data communications areas.

"Under the terms of our agreement with the university, we undertake to provide course content and experienced instructors", says Claudia Masel Skogsberg, head of the training unit for business and customer relations at Ericsson Education Europe.

"It is a highly prestigious agreement, as evidenced by the fact that students who complete our courses can now earn university credits".

The courses will be held in the premises of the Institute of Business Studies at the university.



Claudia Masel Skogsberg

Tonya Lilburn

ERIC & SON



Ericsson helps typhoon victims

► Ericsson in Taiwan recently completed its collection in aid of the victims of Typhoon Toraji. The company and its employees have donated a total sum corresponding to USD 40,000 to the Tsy-Ji charity organization. Typhoon Toraji, which swept across eastern and central Taiwan at the end of July, affected hundreds of people and was the most serious typhoon since Xangsane claimed 89 lives in October 2000.

More awards for 3G-film

► Ericsson's 3G film "Into the Mobile Future" has received yet another award. Last spring the film won the bronze prize at a gala arranged by the IVCA business communication center. Now it has won a gold prize in the category General Business Communication at the Chicago Film Festival in the USA. At the same festival, the film was also honored with a Certificate of Merit in the class International Business Communication.

"I am pleased that the film has received awards in these two very important competitions", says Johan Sköld, Creative Director at Ericsson Radio Systems.

UPCOMING

September 19-21: Mobile Internet 2001 in the CNIT Center, Paris, France. The summit is a forum for gaining an understanding of the strategic business issues facing tomorrow's mobile market.

September 24-26: For the fifth successive year, an international GSM conference will be held in Asia.

5minutes is Ericsson's web-TV program. See a new program every Tuesday.

inside.ericsson.se/5minutes/

NEW ASSIGNMENTS

The market units in Portugal and Spain are to be merged. **Ingemar Naeve** has been appointed head of the new market unit. He will also serve as President of Ericsson in Spain.

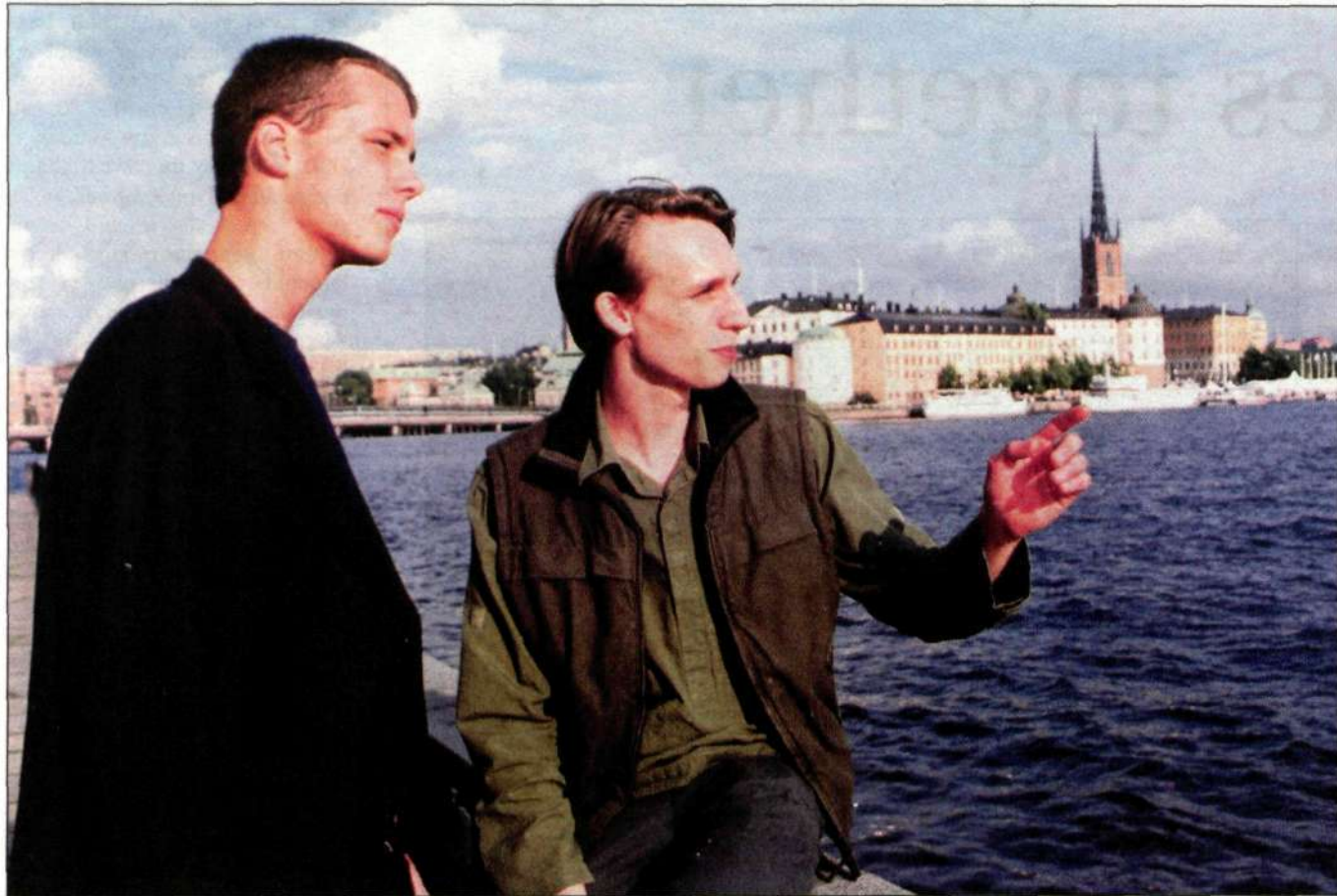


Eduardo Restuccia, currently head of the market unit in Portugal, has been appointed head of the Telefónica global customer unit.



Robert Skog of Ericsson Internet Applications has been appointed Network Architecture Expert within Mobile Internet Solutions.

Patrik Lindell of Ericsson Radio Access has been appointed Expert in Filter Design.



Jakob Edlbacher and Guntram Bechtold also had time to do some sightseeing when they came to Stockholm to share their vision of the Mobile Internet. Photo: Lil Trulsson

Young visionaries show the way

Create your own Mobile Internet! This was the challenge put to hundreds of young Austrians. Jakob Edlbacher and Guntram Bechtold won the competition and a trip to Stockholm to provide Ericsson's product developers with tips for the future.

Stockholm turned on the sunshine to welcome the young winners of the Mobile Vision Award, a prize established by Ericsson in Austria, in collaboration with the Austrian museum of Applied Arts. The object of the competition is for young people to present their vision of the Mobile Internet of the future, by submitting proposals for mobile services and devices which can be turned into reality when next-generation mobile telephony gets under way.

Jakob Edlbacher is a student of industrial design at the University of Vienna, and this is apparent in his winning entry. The UMTS Cool Tool is a phone with a foldout keyboard and an antenna that doubles as a joystick. He got his inspiration by examining today's mobile phones and imagining how they could be improved.

"In the future, a large amount of e-mail

will be sent from mobile phones, which is why it is important that it is easy to enter text", he says and unfolds a flat keyboard from the gray UMTS Cool Tool model he carries in his pocket.

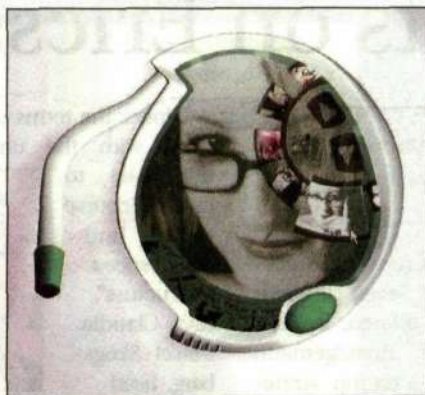
Guntram Bechtold recently completed secondary school and can also envisage embarking on a career in design. He thinks that today's mobile phones are not ergonomic and are clumsily designed.

"They have hard edges and are uncomfortable to carry around", he says. "So I designed my Snake Cam to fit the shape of my hand".

Another feature of this phone is its integrated camera, which can be aimed in any direction. However, Guntram Bechtold's competition entry is not only about the phone's appearance. He has also put substantial effort into making the interface simple and intuitive. In his opinion, this will become increasingly important in the future.

"I think young people want easy-to-use mobile phones. They don't want to read through manuals and fiddle around with settings before they can start using their phone".

This is Jakob Edlbacher and Guntram



Guntram Bechtold designed the Snake Cam to fit the shape of the hand.

Bechtold's first visit to Stockholm and they have a packed schedule ahead of them. Shopping, museum visits and sightseeing have to be fitted into their brief weekend stay. They spent the morning presenting their proposals to a representative from Ericsson's Consumer Lab and now the two young designers hope that their ideas will inspire Ericsson's product developers when they create the phones of tomorrow.

"It was fun to come here and show my phone. Now I just hope that I will see it as part of Ericsson's range in the future", says Jakob Edlbacher with a laugh.

In the meantime, both young men use the Ericsson T20 - Guntram Bechtold because it is simple and intuitive, Jakob Edlbacher for the sake of the attractive design.

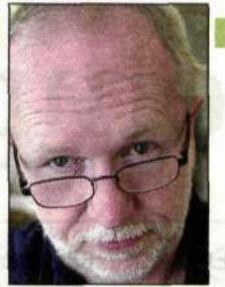
Tonya Lilburn
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With a fold-out keyboard on the Cool Tool it will be easier to send e-mails from the phone.

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CHRONICLE



Lars-Göran Hedin
corporate editor

US colleagues in our minds

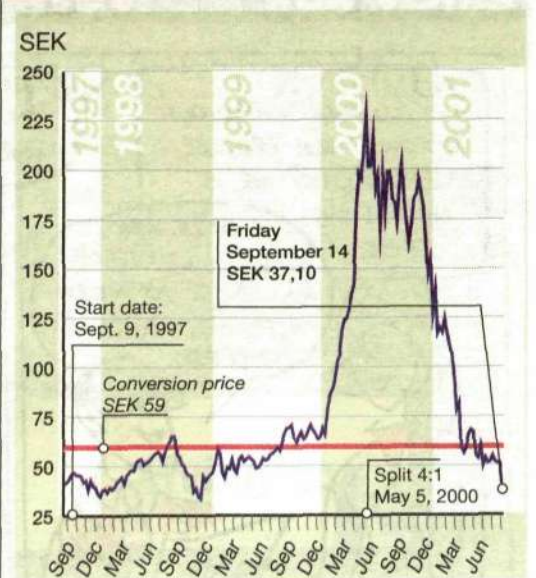
The past week was dominated by the horrifying and terrible news from New York and Washington. After the first shock, our thoughts went to all our colleagues in the US and in particular to the dear friends in New York and Washington. Luckily, no one was hurt, but of course they - like most Americans - are suffering the terror of not knowing how many friends and relatives that might have been in those demolished buildings.

During the last few days, I have been deeply impressed by the way the Americans and the American society has handled the situation. There seems to be no end to the willingness to help and contribute in clearing up the disaster sites and building up what was destroyed. And, apart from a few minor outbursts of racism and xenophobia, it is impressive to see how people of different race, religion and gender, join each other in these efforts. It must be a very disappointing experience to whoever was responsible for these actions that people all over the world are expressing their solidarity with the American people.

In the Ericsson world, we have seen the same signs of solidarity - although on a smaller scale. Never has it been more obvious that Ericsson is a global company. All over the world, Ericsson people are sending compassion and thoughts to their colleagues in the US; at Contact we have received lots of mails with suggestions on how we can help and assist those colleagues affected. With our tradition of multiculturalism and our history of working in all parts of the world, it feels assuring that at least in our own organization, people are regarding the question of guilt as something connected to the responsible persons only, not to this or that group of people.

Whatever we do, we must not get stuck in the sense of shock and paralysis that so much dominated last week. No matter how horrible these events have been, the world - as always - must go on. We must all join the Americans in their efforts to survive and overcome even this terrible attack. There is a lot of business - internally as well as externally - that needs taken care of. By dedicating ourselves to the task of overcoming these hard times (remember they were hard even before Tuesday the 11th), we will increase our chances to develop and prosper in the long run.

THE ERICSSON B SHARE



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