#### cdma2000 in record time

Equipment for the cdma2000 mobile system was developed in record time. In less than two years, Ericsson has come out on top. Participants at the CDMA congress in San Diego were impressed by what they saw.

#### Latino CNN on cell phone

Mobile Internet users in Latin America will soon be getting access to news from CNN. Ericsson has reached an agreement with Turner Broadcasting System. This will result in a news and information service in Spanish and Portuguese. 6

#### Three new leaders

**Ericsson's Consumer Product division** recruits three new leaders. They are experts in industrial design, sourcing and strategic market development.







Lawrence Ambrose, Lucas Selepe and David Zapeei assemble branches on the "trees" used to camouflage radio masts in South Africa. Photo: Torbiörn Selander

# **Radio masts under cover**

South Africans are so concerned about the environment that many towers and base stations have been camouflaged as trees so as not to detract from the landscape. This success has given Ericsson's local company greater regional responsibilities resulting from many new assignments throughout southern Africa. Feature, 18-20

## **3G-production** gears up in Gävle

Production of radio network products has begun at Ericsson's new plant in Gävle. By next summer, 150 employees will be working in the new facilities, and by the second quarter of 2002 that number will increase to 400. News, 8-9

## **Trendy phone T20 unveiled**

It's small, tough and curvy. Journalists crowded around last Tuesday when Ericsson's new WAP phone, the T20, was introduced. Reactions have been very positive both from the media and the general public. The phone measures Internet time using a new, global system, and has a hole for a strap so it can be hung from the wrist or neck.



Photo: Lars Åström

## **Employees get** help in a crisis

Floods, computer viruses and kidnappings. During times of major crisis, it is Ericsson's crisis group that makes decisions on how the company should react. This can include sending doctors and psychologists to various parts of the world.

Also meet Ulrika Thorildsson, an Ericsson employee who emerged from a crisis with renewed strength. 16-17

Poland's largest phone operator has selected Ericsson to expand its nationwide IP network. 5

Products that make it possible to send photos via mobile phones will be available on the market by next year through a collaboration between Ericsson and Canon. 31

#### WORLD WATCH

Why is wireless communication so popular in Scandinavia? That is the question posed by Gerrit Wolf, whose professorship is sponsored by Ericsson. 12

#### TECHNOLOGY

Forget your keyboard and computer screen. Ericsson is launching a whole new interface to the Internet. Chatpen is the biggest Swedish innovation at the Comdex trade show. 24



Photo: Lars Åström

#### AT WORK **New policy** to reduce stress

A new policy on stress aims to help employees feel better. It means that the company will provide scope for balancing work and personal life. A clear effort to ensure the well-being of employees in an age when there is a high rate of change, both in society and within the company. 28



## The Corporate Downsizer.



Introducing the new Ericsson R380, the ultimate corporate communication tool. It combines the functions of four key devices (mobile phone, laptop, organizer and notepad), and it's so easy to use, it's irresistible. So junk your organizer and leave your laptop behind.

With the R380, you can get secure access to the Ericsson corporate network and e-mail server, handling up to 200 mails, 1000 contacts, 100 notes and 700 appointments simultaneously – with full PC (e.g. Outlook<sup>®</sup>) synchronization, naturally. It also offers fax transmisson (via SMS), concatenated SMS (allowing messages of up to 39,000 characters), voice memo, notepad with handwriting recognition, calendar and a world clock that displays two time zones at the same time. No wonder we call it a smartphone.

This is the one everyone's been waiting for – so make sure you're at the front of the queue. Check out the R380 website at www.ericsson.com/r380 to find out how you can downsize your corporate tools.



#### CORPORATE KENNET RÅDNE

# Internet Solutions important piece of the puzzle

Internet Solutions' focus is to develop total mobile solutions. As head of the unit, it's Kennet Rådne's job to create an "ecosystem" for the successful development of these solutions.

➤ The Internet Solutions unit has undergone massive restructuring and set out on an entirely new course as of July 1, including developing new offerings to customers. Now it's also Rådne's job to, along with the units 2,200 employees, support and help secure 3G contracts for Ericsson. Since March 1999, he has been responsible for Ericsson Internet Solutions, previously known as Ericsson Business Consulting.

"We really have to open our minds and understand this is not the same as it was six months ago. The major shift is that we are part of a division in which we will provide a total package of products and services. The other major change is that now our main target is operators and Internet Service Providers," Rådne says.

#### **One Ericsson**

The Internet Solutions unit works closely with the Internet Applications unit, with about 3,000 employees. Together these units form the Internet Applications and Solutions division (DIA).

"From a customer point of view there's only one Ericsson. We will present ourselves with only one face. One solution, one face, to the customer," says Kennet Rådne.

DIA develops a customer solution and connects it all – from terminal to content provider to customer. There are three focus areas in forming a total solution. The first is to build a service network architecture – that is, to make it easier to plug in and run an application in a network.

The second is to develop applications, such as wireless e-mail or stock trading on mobile devices.

The third part is consulting and systems integration – to build a solution specific to a certain client, such as a bank or an operator. This third step is the contribution of the Internet Solutions unit. None of the steps can stand alone.

#### **Trinity model**

Ericsson can accomplish its goals by working in a trinity model.

An example of three players working together is: an operator, which has the network; a



Kennet Rådne, head of the Internet Solutions unit, describes his management style as relaxed and goal-oriented. He delegates as much as he can, which is possible because he trusts and respects his colleagues. Photo: Lars Åström

bank, which provides financial services; and Ericsson, which brings the service network architecture, a mobile stock trading application, and knits it together with its system integration service.

"We have concluded that to make the industry grow and to make sure Ericsson has a leading position, we should not do everything ourselves, but collaborate with other interests and build an 'ecosystem' for mobile internet solutions," says Kennet Rådne

#### Helping customers thrive

Ericsson's financial backing is a necessary part of this support. Every week a new Internet start-up seems to appear, especially in Stockholm, which the international press has dubbed "Wireless Valley."

But the headlines show that start-ups seem to go under almost as frequently as they pop up.

Part of Ericsson's job is to make sure that the

#### FACTS/KENNET IN PERSON

**Background:** Kennet Rådne joined Ericsson Internet Solutions, formerly Ericsson Business Consulting, as President in March 1999. Ericsson Internet Solutions is an operational unit within Ericsson's Internet Applications and Solutions Division.

**Hobbies:** Playing guitar. Kennet Rådne has five at home and says Eric Clapton is his favorite musician.

companies that develop useful applications, or have the potential to do so, can survive a fickle investment climate. For this reason, DIA will establish an investment unit for startups. Kennet Rådne describes his management

style as relaxed and goal-oriented. He delegates as much as he can, which is possible because he trusts and respects his colleagues. Favourite drink: Bordeaux wines

Favourite web sites: Yahoo! Finance, Totaltelecom.com, a business intelligence site for the telecom industry

CONTACT No. 18 2000

Family: Wife Margareta, children Jonas, 17, and Jessica, soon 12

Bedside reading: Latest book is Ruthless.com by Tom Clancy

"Basically I let people work alone if they meet the targets. If we are getting new business, the customers are happy and people are motivated, then these are the signs of success."

> Abigail Schmelz kontakten@lme.ericsson.se

ia 15 00 a 10 58	of 382 m subscrib	ing by Ilion ea as a tota nillion GS	ich moi I SM		ibers i	
n.se	System	Nun	nber of Septer	nber 3		per
n.se ,	System	Nun		nber 3		
riselfinist. of	System	Nun	Septer	nber 3		per
rnedintes a Criticale de besternatio	- a+   =	mi neo	Septer	nber 3		per month
C, 1.	GSM	382	Septer	nber 3		per month 14,6
riselfinist. of	GSM TDMA	382 54	Septer	nber 3		per month 14,6 2,0

#### Contact Corporate Editor, PUBLISHER Lars-Göran Hedin, +46 8-719 98 68, lars-goran.hedin@lme.ericsson.se

SENIOR EDITOR

Henrik Nordh, +46 8-719 18 01 henrik.nordh@lme.ericsson.se

Pia Rehnberg, +48 8-719 34 72 pia.rehnberg@lme.ericsson.se

EDITORIAL STAFF Lars Cederquist, +46 8-719 32 05 lars.cederquist@Ime.ericsson.se

Lars-Magnus Kihlström, +46 8-719 41 09 lars-magnus.kihlstrom@ lme.ericsson.se Sara Morge, +46 8-719 93 83 sara.morge@lme.ericsson.se Jesper Mott, +46 8-719 70 32 jesper.mott@lme.ericsson.se Ulrika Nybäck, +46 8-719 34 91 ulrika.nyback@lme.ericsson.se Gunilla Tamm, +46 8-757 20 38 gunilla.tamm@lme.ericsson.se

#### PHOTOGRAPHY Lars Åström, +46 8-719 93 31 lars.astrom@lme.ericsson.se

31 Solveig Sjölund, +46 8-719 41 11 se solveig Sjölund@Ime.ericsson.se

ADDRESS

HF/LME/DI

Ecke Küller, +46 8-681 35 07

ecke.küller@lme.ericsson.se

LAYOUT AND WEB DESIGN

Paues Media, +46 8-665 73 80

Telefonaktiebolaget LM Ericsson,

EXTERNAL ADVERTISING Display AB, +46 90-71 15 00 INTERNAL ADVERTISING AND VACANCIES Suvi Nurmi, +46 8-719 10 50 suvi.nurmi@Ime.ericsson.se PRINTED AT

Nerikes Allehanda Tryck, Örebro, 2000 **CONTACT ON THE WEB:** http://inside.ericsson.se/infoc

http://inside.ericsson.se/infocen http://www.ericsson.se/SE/ kon\_con/contact

#### 4 NEWS

#### Bluetooth goes to market this year

➤ In its effort to introduce Bluetooth products to the market, Ericsson has had to simultaneously develop standards, components and products – a process that has taken longer than anticipated.

Delays have been due largely to the great demand that Ericsson has been experiencing from its customers.

Ericsson will be launching a Bluetooth headset later this year, which will be the first Bluetooth product available to consumers. Ericsson has delivered 100,000 components and is currently keying up for large-scale production.

The widespread demand has far exceeded expectations. Consequently, it has been a challenge for Ericsson to take on all the work.

## Ericsson invests in marketplace

➤ Ericsson, together with SEB and b-business partners, is investing about USD 13 million in Integrated Business Exchange (IBX), a business-to-business company. IBX is an electronic marketplace for the purchase of office supplies, IT equipment and consulting services. Initially, Ericsson and SEB will be its biggest customers.

Commerce between companies via electronic marketplaces is expected to increase significantly in the coming years. The Swedish Trade Council estimates that e-commerce will account for USD 12.7 billion by 2004 in Sweden alone.

It is anticipated that e-commerce will lead to cost savings for companies in the order of at least USD 1.6 billion.



Kristin Holmberg and Eva Söderlind Photo: Anders Kallersand

#### Manager of the Year award is split

>> Kristin Holmberg and Eva Söderlind, both of Ericsson Business Consulting, have been named Manager of the Year 2000 by a Swedish business publication. The prize went to them based on their decision to share a managerial position, allowing each to find a way of serving as managers on their own terms.

The award winners point out three basic requirements for sharing a leadership position: having the same vision, absolute confidence in each other and a strong sense of humility.

#### **Contact clarifies**

In the last issue of Contact we mentioned the collaboration between Ericsson and Compaq with regards to new AXE switches.

Contact would like to clarify that the ongoing service and support that Compaq provides, is only true for the cPCI servers that are included in the switches.



Journalists crowded around Anna Hultman when the T20 was introduced last Tuesday. Photo: Lars Åström

# The new T20 charms trendy consumers

At precisely @468 Internet time, Ericsson recently launched its new WAP telephone, the T20, in a number of cities worldwide. The new model's global chronometry, daring design and WAP functionality are aimed at attracting trend-conscious consumers.

The new T20 is meant to be seen, as it boasts this year's "in" colors and the option to connect a carrying strap so that the phone can be visibly worn. The target market for the new telephone mainly comprises young, trendy consumers – the people who create new trends or

#### Two time measurements

rapidly adopt them.

"The phone really stands out, thanks to its bold design, and it is really comfortable to hold," says Joakim Liljedahl, global product manager for the T20 in the Consumer Products Division.

Swatch Internet time is a totally new way of measuring time, and the T20 is the first phone in the world to show both normal time and Internet time.

"We live in a world where communication is becoming more global every day," continues Joakim Liljedahl.

#### "Cool services"

"Internet time introduces a common time system covering the entire world, with each day divided into 1,000 beats. This means it is no longer necessary to worry about what time it is in New York when setting a time for an Internet chat or a meeting.

"To show how brilliant WAP is, we are joining forces with the Internet company Mgage Systems, to launch a number of really cool WAP services, such as WAP-chat when the phone hits the shelves,"he adds.

#### Synchronized launch

WAP-chat allows users to chat between WAP phones and computers or between two WAP phones. The user can enter a number of environments as an anonymous chatter, to arrange dates for example. Both the T20 phone and the new services should be available during the last quarter of this year.

The launch took place simultaneously in Stockholm, London, Helsinki, Athens and Moscow. The female pop group, All Saints, who are currently topping the charts in the US and Europe with their single Black Coffee, were on hand in London to sprinkle a little stardust over the launch.

As a new telephone model is launched, another is laid to rest. In its third-quarter report, Ericsson stated that it no longer plans to produce the T<sub>36</sub> Bluetooth phone.

"We are changing our product portfolio in order to meet market demands as effectively as possible. Today, we are prioritizing phones with GPRS functionality, such as the R520," says Joost van der Made, product manager for the T36 model.

> Ulrika Nybäck ulrika.nyback@lme.ericsson.se

#### FACTS/T20

- What the mobile offers: • Swatch Internet time
- WAP 1.1 browser
- Voice recognition
- Vibration signal
- Choice of several colors
- Price category low end: "entry level"

## World-class leaders strengthen Consumer Products

Ericsson's Consumer Products division recruits three new members to its management team.

The managers bring in top expertise in the areas of industrial design, sourcing and strategic market development.

Nikolaus Frank will join as responsible for industrial design of mobile phones on January 1, 2001. He has received several international design awards and has been working with design of electronics and telecom-related consumer products for 13 years. December 1, Anders Franzén

will join Ericsson Consumer Products management as responsible for sourcing. He has extensive global business purchasing experience from Volvo.

Heading up the strategic market development function, the company recruited Philip Vanhoutte who joined the management recently. He has a long experience in consumer markets, having worked for global players. Most recently he worked for MCI Worldcom International where he held the position of Senior Vice President for Marketing and Sales.

- We have recruited three new top managers who stand for world-class performance in their fields of expertise, said Jan Wäreby, Executive Vice President of Ericsson's Consumer Product division.

jesper.mott@lme.ericsson.se

# Back to Profit – action being taken in the US

The Consumer Products division in the US aims to get back to profitability by focusing the product portfolio, shifting employees into other Ericsson operations and reducing the work force.

Despite staff cuts, the immediate response from employees in Research Trinagle Park, North Carolina, was relief that action has been taken. The changes are in line with the division's Back-to-Profit program.

"There had been much speculation that changes needed to be made, due to the state of the business. So when the restructuring was explained there was some level of surprise, but also relief that action was being taken", said Al Ragland, Vice President, Human Resources, Consumer Products Business Unit TDMA/CDMA.

Because of the restructuring in TDMA/CDMA 500 employees will

be transferred into areas where they will be involved in improving the capacity for 3G-production. Some 100 people will have to leave Ericsson.

"With a continued focus on research and development, we've changed our strategy to meet market needs. We've downsized the organization without impacting our capability and competence, initiated cost containment measures, and matched employee talents with other company needs", said Ulf Månsson, Vice President and General Manager, TDMA/CDMA Consumer Products, US.

The Back to Profit-program for Consumer Products is all about giving top priority to restoring profitability in Ericsson's mobile phone business. The program is focused on research and development activities on Mobile Internet products.

#### NEWS

**HELLO THERE...** 

5

# **CDMA equipment impressive in San Diego**

It's less than two years since Ericsson decided to enter the arena for CDMA operators. The lead held by other suppliers has been erased in record time. Ericsson exhibited its latest technologies recently at the CDMA Americas Congress in San Diego, California.

The spotlight was focused on two products – a radio base station and a base stations controller designed for the new cdma2000 system.

"We received extremely favorable reactions to the products on display at the congress. People were particularly impressed with the speed at which Ericsson had been able to develop competitive products," says Charlotte Rubin, press relations manager at Ericsson CDMA Systems in San Diego.

CDMA is a mobile system, with the majority of its users in Asia. Growth in the number of CDMA users has been dynamic.

At year-end 1999, there were about 50 million users worldwide, and that number is expected to increase by five hundred percent over the next fours years. Ericsson's goal is to capture a market share of about 15 percent by that time.

It is less than two years, however, since Ericsson decided to broaden its focus to include CDMA, a sector in which the company had not been involved previously.

The system currently in use is the cdmaOne system, but the new cdma2000 system will bring technology into the third generation of mobile telephony, with data transmission speeds of 144 kbps and mobile IP applications permanently connected to the

Contraction of



Ericsson's focus on CDMA began in spring 1999 with the acquisition of Qualcomm's Infrastructure division. After less than two years, Ericsson has taken the lead in technological development. Photo: Lars Åström

Internet. CDMA products now being launched by Ericsson have been adapted for compliance with the first stage, commonly referred to as cdma2000 1X.

The control unit, BSC 1120, has a smaller footprint than any competing product on the market, but provides a high call capacity. The base station, RBS 1127, is described as the market's most flexible base station, and it can be mounted on a wall or roof, or on a pole.

"We are tremendously excited to be introducing this industry leading 3G-products."

"Ericsson has developed a cdma2000 radio access platform that is uniqely designed to improve our customers profitability by reducing costs throughout the network lifecycle, from initial capitol per purchase through installation, maintenance and operation," says Åke Persson, manager of Ericsson CDMA Systems in San Diego

The capacity of cdma2000 will be increased in the future. In its next development stage, the system will be equipped for data transmission speeds of 2 Mbit/s, and the stage after that will bring real-time solutions.

The equipment now being brought to market by Ericsson is designed to allow simple upgrades to these future standards. The products will be available in the second half of year 2001.

> Lars-Magnus Kihlström lars-magnus kihlstrom@lme.ericsson.se

FACTS/CDMA

- CDMA is a mobile system used in more than 40 countries.
- About 74 million users are connected to CDMA, with most of today's subscribers situated in Asia.
   South Korea is the largest single market with 25 million subscribers.
- CDMA also has a strong foothold in North America, with 27 million subscribers.
- According to current estimates, China will have about 40 million CDMA users within the next few years.
- There are 11 million users in Latin America today, an increase of more than 200 percent over one year ago.



## Eva Sparr...

... who recently started working as Corporate Communications Manager of the Internet Applications and Solutions division. For the first time ever, Ericsson has elevated the development of services for mobile Internet applications to division level within the company.

#### What aspects of the job appealed to you most?

It's an exciting area, focused on efforts to answer the question: "What can we do with Mobile Internet technology?" I think it's extremely interesting to be involved and able to impact future development.

#### What are the most important messages from your division?

We are striving to be a major force in the development of Internet services for both fixed and mobile networks, with particular focus right now on mobile Internet. We also plan to create an innovative atmosphere for our cooperation partners and develop services that people really want to use.

Your strategy means that Ericsson will actually develop one percent of the most important services. How can you possibly know which services will be the next best sellers?

We intend to create an environment in which a very large number of services will be produced, and some of them will definitely become best sellers.

#### How can you be sure that third-party systems developers actually develop services that will benefit Ericsson and our customers?

There are no conflicts of interest in this area – all parties want to develop services that most people will want to use.

#### What are the most important qualities of a corporate communications manager?

He/she has to make decisions based on business considerations – but always with a communicative perspective. It's important to understand what kind of information supports the Company's best business interests. A corporate communications manager should also understand how different news reports and announcements are interpreted by different target groups, such as employees and journalists.

# Ericsson helps UN in crisis situation

Ericsson and SRV, the Swedish Rescue Services Agency, made it possible for the management of OCHA, the UN organization for coordination of emergency relief efforts, to meet recently in the French alpine village of Chambery.

The meeting was held October 12-16. Ericsson and SRV were invited to build a control center that would provide OCHA management with opportunities to maintain full readiness despite their location in a small remote village.

The control center had just established contact lines with the outside world when the situation in the Middle East suddenly became more serious and OCHA needed to act.

It contained the latest in communications technology, including mobile satellite telephones, video conferencing equipment and PCs.

The control center also featured short-wave radio communication

equipment, the most common link in crisis situations.

During the meeting, the conflict between Israel and the Palestinians entered a critical stage, and all features of the control center were used at maximum capacity. No members of the OCHA management staff were required to leave Chambery.

Carolyn McAskie, UN director of emergency relief in crisis situations, explained later that OCHA's management staff would not have scheduled a meeting in such a remote location if they had not been absolutely certain that Ericsson and SRV would be able to provide their services.

Per Rosenkvist of the Multi-Service Networks division and Krister Ljungkvist of the Mobile Systems division managed installation, operations and maintenance of Ericsson's equipment in Chambery.

Jesper Mott

## Upgrade in Poland

Telekomunikacja Polska, the largest telecom operator in Poland, has selected Ericsson to expand its national IP network.

Ericsson's Packet Backbone Network will substantially increase the network's capacity, providing the Polish operator with the largest backbone network for IP in Eastern Europe.

"Ericsson's Packet Backbone Network offers a very robust IP Backbone solution with development potential that will enable us to satisfy our rapidly expanding customer base," says Euzebiusz Sowa, marketing manager of Telekomunikacja Polska's Data Transmission Systems.

The Packet Backbone Network is a broadband network for transmission of packet data.

The installation of PBN will provide subscribers in Poland with access to new services and faster, more secure transfer of information, including greater capacity for Internet access. The network is a key component for increased access to the next generation of systems for both mobile and fixed telecom operators.

Toward year-end 2000, Telekomunikacja Polska will start installing Ericsson's Packet Backbone Network in about 12 cities throughout the country, including Warsaw, Krakow and Poznan.

The network will place Poland in a leadership position among Eastern European countries, in terms of development toward the next generation of telecom systems.

Telekomunikacja Polska recently signed another contract with Ericsson for deliveries of MINILINK-BAS.

"Poland's decision to once again select Ericsson as its supplier represents a growing trend among operators to choose experienced telecom suppliers that are able to offer complete solutions," says Mike Thurk, Executive Vice President of Ericsson's Data Backbone and Optical Network division.

Ulrika Nybäck ulrika nyback@lme.ericsson se

#### 6 NEWS

CONTACT No. 18 2000

#### ENGINE to Brazil

>> Ericsson's latest ENGINE contract is worth USD 5.5 million. The Brazilian operator Sercomtel has selected Ericsson to upgrade its telephone network to the next generation.

The contract also includes the installation of ADSL and ISDN lines for highspeed Internet and other broadbandrelated services.

ENGINE is Ericsson's upgrade solution for fixed networks.

#### Korea in forefront with CDMA

>> The world's fastest growing CDMA operator, Korea Telecom Freetel (KTF), has selected Ericsson's Packet Backbone Network for its new mobile data network.

KTF needs to upgrade its network in order to handle the explosive growth that is occurring both in terms of the number of subscribers and the demand for mobile data services. By utilizing the Packet Backbone Network, KTF is taking a step closer to the next generation's wireless network.

"We're now offering KTF a chance to become a leader in Korea when it comes to mobile Internet services," says Michael Thurk, Executive Vice President for Ericsson's Data Backbone and Optical Network Division.

#### **Multi-million deal** in Malaysia

>> DiGi Telecommunications, Malaysia's largest GSM 1800 operator, has signed a contract with Ericsson in Malaysia worth USD 210 million.

Ericsson will be expanding DiGi's GSM network to improve coverage and service in the country. The contract also includes the delivery and implementation of GPRS. DiGi has more than 900,000 subscribers in Malaysia.

#### **Spanish operator** picks Ericsson's 3G

>> Spanish operator Xfera móviles has selected Ericsson to be the supplier of its 3G network. The company is a new operator in the Spanish wireless market, and has received one of the four 3G licenses issued in the country.

The contract is worth USD 250 million. Ericsson will be delivering a turnkey network that provides coverage to roughly half of the country. Major cities such as Barcelona, Bilbao and Valencia are included in that area.

"This contract proves once again that customers believe in Ericsson's 3G solutions and our ability to supply networks," says Ingemar Naeve, head of Ericsson in Spain.

Including this contract, 17 of the 22 contracts for 3G that have already been signed worldwide have been awarded to Ericsson.

#### **R&D** units combined

>> In October of this year, Ericsson in the Netherlands combined all of its research and development into a single unit. The new unit, known as Ericsson EuroLab Netherlands (ELN), conducts technical research and development of products and services.

# **CNN to Latin America** over mobile Internet

Ericsson has signed an agreement with Turner Broadcasting System in Latin America. The two companies will work together to develop a news and information service using material from CNN.

This move will make CNN's news accessible to mobile Internet users throughout Latin America.

"We're glad to be working with a company that is considered to be the world leader when it comes to mass media. This contract will help in the development of mobile Internet services in the region," says Bengt Forssberg, Executive Vice President, Latin America.

By 2003, mobile Internet users in Latin America are expected to exceed the number of users with fixed Internet connections, although Bengt Forssberg says that the development rate is based on access to highly sought-after services, such as up-to-the-minute news. Ericsson and CNN Mobile are jointly devel-

oping this news service. TBS Latin America and CNN Mobile will be responsible for the content, with assistance from Ericsson.

The service will be available in both Spanish and Portuguese, and users will have access to items such as global and regional news, sports and weather.

Juan Carlos Urdanetta, one of the managers at TBS International, sees great possibilities as a result of the contract.

"This contract will bring us clos-

er to our goal, which is to offer CNN's content in an easy-to-use format regardless of the time or where users are located," says Juan Carlos Urdanetta.

CNN Mobile was the first service in the world to offer mobile information and news services with a regional focus, providing global coverage. Turner Broadcasting System is owned by Time Warner.

> Jesper Mott jesper.mott@lme.ericsson.se

**Thailand upgrades USC** 

Ericsson's work to expand mobile Internet service in Thailand has entered a new phase. Earlier this year, Ericsson sold Thai operator AIS its **User Service Center (USC)** packet solution, enabling the operator to offer mobile data services.

Ericsson and operator AIS are now working together to connect technology with attractive services. Ericsson sold the USC solution to AIS in conjunction with an upgrade and expansion of Thailand's GSM network earlier this year.

USC is a uniform server platform for all the mobile data services that an operator chooses to acquire. All services work using an ordinary GSM network.

Morgan Curby is head of marketing and sales for the expansion project. He points out that it is a rather unique project, one in which Ericsson is responsible for the implementation of services with the assistance of technology, solutions, system integration and business consultants.

"We're not only selling products, but whole business solutions. With the help of business consultants, we assist operators in getting their services started. Now we also have a contract that results in Ericsson earning more money if the service goes over well among the users."

When AIS makes the transition from simply being an operator that offers voice telephony to offering a



Ericsson in Thailand is assisting operator AIS in bringing together technology and services. Photo: Lars Åström

host of new services, new internal processes within the company will be required. Ericsson is helping the operator to analyze its needs for change and to implement new processes in that regard. The contract also includes the technical integration of the operator's business processes with Ericsson's platform for items such as operations, customer service and payment processes.

#### **Personalized** functions

What will AIS be able to offer its customers once the package is ready?

Morgan Curby describes a service known as Personalization, in which customers are able to decide themselves how the information should be displayed on their phone. AIS can sort various categories of information, such as all international soccer results, and create channels that automatically update a customer when something new has happened. That kind of service is known as a Push solution.

#### Locate friends

AIS will also be able to offer a Mobile e-commerce service based on Mobile E-pay. Initially, the service will allow customers to buy movie tickets from a large cinema chain.

Using Ericsson's Mobile Positioning solution, AIS can also offer a system that assists customers in

finding banks, stores or even friends that are nearby. Morgan Curby believes that it is already essential for Ericsson to offer packet solutions that support operators in realizing their actual business goals, and not merely elegant, technical solutions.

One of the goals with the mobile Internet project is to incrementally change the operator's view of Ericsson as a technical supplier to that of partner for effective business solutions.

The contract will result in revenues of approximately USD 4 million if the solution is accepted commercially.

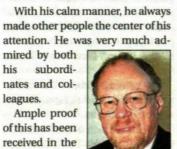
**Jesper Mott** 

## Stellan Nennerfelt passed away

Stellan Nennerfelt has died following a period of illness. He was responsible for operational development within the company and was a member of the corporate executive team.

It is with great sorrow that we have noted the news of his passing. Today, all of our thoughts are with his wife and two adult children.

Stellan was a very likeable man, and it is a great loss for us that he left us at much too young an age.



Stellan

Nennerfelt

his

ous

leagues.

form of numer-

that flowed in

during his hos-

e-mails

pital stay. Stellan began his career at Ericsson over 32 years ago, working for many years at Ericsson Radio Systems. In spring 1999, he transferred to Ericsson in Hong Kong, where he oversaw personnel, IS/IT, quality control issues and operational development for the Asian market area.

This past May he left Hong Kong, moving to London to assume his new position as Senior Vice President, Operational Development.

Stellan's departure leaves behind a void in what is a very important field for the company, and where Stellan's broad and unique expertise, interests and excellent contacts with people was so needed.

We at Ericsson have lost a very dear and faithful colleague and friend, and Stellan will long remain in our memories.

> Kurt Hellström, President Britt Reigo, **Senior Vice President**

# The changing face of Ericsson

On October 31, Ericsson changed its Net image when the design of the "ericsson.com" site on the Internet was comprehensively revised. The new presentation is characterized by a more distinct customer focus, a cleaner layout and simplified navigation, it will also result in a completely different way of working, new processes and new roles.

take a more uniform grip on the Ericsson Internet site; it used to sprawl in all diand rections looked very different in various parts of the orga-



Mats Renée

nization," says Mats Renée, responsible for Ericsson's presence on the Net.

"The Internet is one of the most important channels through which the company's brand is communicated. The Net is where Ericsson must 'walk the talk' and show a uniform corporate face to its various customers, regardless of whether they are based in Stockholm or Hong Kong," he continues.

The first changes to ericsson.com will be seen in November. The website page will look quite different; the two upper levels of the site have been being redesigned and a new infrastructure is being produced. The first release will consist of approximately 25 pages that are linked to the remainder of the content. ericsson.com will be far more customer-oriented than is currently the case. In future, customer requirements will govern the content and design of the site. Today, some ten Channel Man-

agers are responsible for individual segments of the site that focus on specific target groups, such as consumers, companies, operators, media or potential employees. It will now be possible for each target group to find what they are seeking on the very first page of the site.

#### Centralized tools - local content

To ensure that several hundred web editors throughout the world successfully present one Ericsson constitutes a major challenge. To ensure that this happens, a publishing-control system will be implemented.

"This means that less time and money will be spent on the development of designs and technical solutions, since these activities will be handled centrally, at corporate level. This will release the personnel who work on web-related projects out in the organization, allowing them to focus instead on the content and the



presentation of the correct information for customers," explains Renée.

"We are working hard to create a design and a system that will be attractive to migrate to. The idea is that ericsson.com will be the best site in our industry and a top site in general."

#### **Cooperation the key**

The objective is to start the implementation process in local markets and business units as early as the current year and thus to have made significant progress in 2001. The ericsson.com group will be able to furnish the necessary tools, rules and support but it will be up to the local companies to make plans to accommodate the modifications.

"We cannot make these major changes at central level without the help of the organization. Although it can be seen as a major step for companies to be forced to change the way in which they work, these new meth-

On October 31, Ericsson launched its new ericsson.com website investment. The highly modified website pages look very different and navigation has also been changed.

ods will radically reduce our Internet costs and increase productivity," underlines Mats Renée.

"It will also be easier to update the site in terms of its design and structure when the whole of ericsson.com is based on the same system. As a result, Ericsson will be able to keep up more easily with advances in the Internet field, which is a necessity."

> Malin Järf kontakten@lme.ericsson.se

# Website is key to brand image

ericsson.com is Ericsson's electronic face to the world.

Now the site will also become one of the company's most important marketing channels.

"That's why our Internet presence has to appear very professional. Part of that involves Ericsson keeping pace with technology as it changes and being open to new opportunities. Until now, we haven't been very good at doing that, but we've taken a major step in the right direction with the redesigned website," says Torbjörn Nilsson, Senior Vice President, Marketing and Strategic Business Development.

Torbjörn Nilsson views Ericsson's website as an important tool for building the company's brand image.

"It's incredibly important that Ericsson take advantage of the opportunities made available by the Internet to strengthen the company's brand image, as well as to form long-term business relationships with our customers."

"With the new platform for electronic commerce now in development, the Web will also become one of Ericsson's most important links to the marketplace. The new structure and design of Ericsson's website must also support that development. That's why our new website has such a strong emphasis on business."

"Now that the new Ericsson website is up and running, changes will initially be most visible at the top levels of the organization. Expanding this new concept downwards through the company's structure will be a very big challenge."

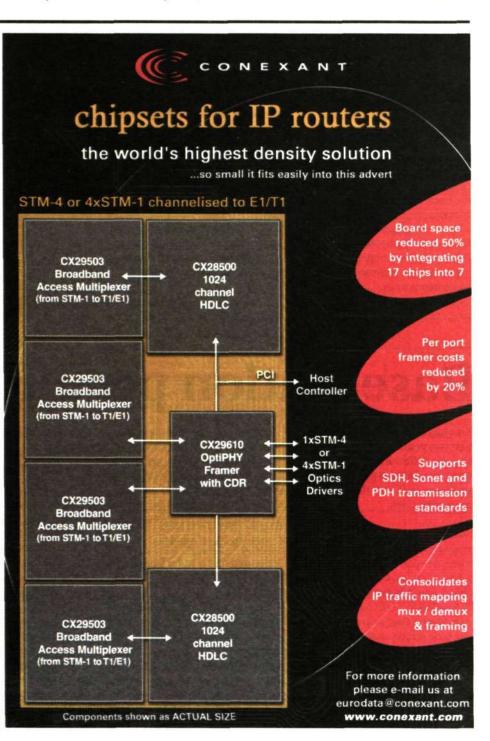
"Nor is this limited simply to the Internet. As I see things, there's nothing to prevent us, over the long term, from implementing the same design and structure on our intranet. In many instances, it is largely the same information we're talking about, regardless of whether it's posted internally or externally," says Torbjörn Nilsson.

In order to emphasize the importance of implementing the new design among all units that operate external websites, Torbjörn Nilsson points out the Mobile Internet campaign that is currently underway.

"That campaign aptly demonstrates the enormous impact we can have when all portions of the company are united behind a marketing initiative," says Torbjörn Nilsson.



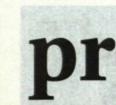




#### 8 NEWS 3G

#### NEWS 3G

# Gävle plant pioneers 3G



An old warehouse in Gävle, Sweden has been transformed into a factory of the future, where 3G radio network products are manufactured by Ericsson.

Production recently started, with the first commercial shipments being sent to the Japanese operator J-Phone, which is taking over the system next August.

"It's really fun to be involved in building something from the ground up. This job is great," says Manuel Valdes Gomez, who was one of the very first people to start working at the new plant

#### The Gävle plant's new facilities were inaugurated on September 15.

#### **Outfitting underway**

When Contact recently paid a visit to the facility, situated about two kilometers away from the main plant. the "production cells," as the workstations are called, were still being outfitted with equipment.

"Initially, there will be twelve production cells operating on two shifts," says Lars-Erik Eriks son, who is

responsible for Lars-Erik overseeing 3G Eriksson production. "By

next summer, there will be about 150 people working here, with that number increasing to 400 employees by the second quarter of 2002."

#### **Training required**

At the new plant, base station cabinets have been outfitted with equipment from several different suppliers, from both within and outside Ericsson

Flextronics supplies certain cards, the Ericsson Radio Access plant in Kista supplies amplifiers, while Ericsson's plant in Nynäshamn supplies antenna units.

At the main plant in Gävle, a new production line for 3G base station

A lot has happened over the

past two years. There used to

be great differences between

development and production

environments, but that is no

Today, sharing experience is an im-

portant part of the task of quickly

The plant in Gävle is what is

known as an NPI facility. NPI stands

"It means that we're putting all

very close collaboration with the de-

for New Product Introduction.

of the Gävle plant.

bringing new products to market.

longer the case.

circuit boards has been set up. Sanna and Mia Nordmark work here and have been involved in building up the new line. Both have worked at the plant for many years and have witnessed developments first-hand.

"Everything happens so quickly. It's enormous fun to be involved from the start. We have experience of surface mounting from previous projects, and were on hand when the new line was set up. A great deal of training is involved, which we divide up between us so that those who attend courses can teach the others," says Sanna.

#### Foundation to grow on

Manuel Valdes Gomez has also taken several courses, including one on installing WCDMA boards - one of the specific 3G boards. He applied for a transfer to the new plant after working at the main plant in Gävle, citing his desire to work with the very latest technology.

He appreciates that the personnel themselves have the chance to influence their work environment. He felt that it was an added benefit to be able to demonstrate his work on the base station in his native language, Spanish, for Spanish-speaking visitors. There is a great deal of interest in visiting Ericsson's 3G plant, especially among the media.

#### New operation challenging

In addition to manufacturing base stations, the plant is now also producing a completely new product - the Radio Network Controller (RNC), the switch for the 3G

Just like Manuel Valdes Gomez, Lars-Erik Eriksson thinks that it is both exciting and challenging to be involved in building up a new opera-

"We're still at the starting line as far as our ability to handle large volumes goes; there's still another 3,000 square meters to expand into," he says.

Part of being an NPI facility in-

tion to large volumes, and once

manufacturing has stabilized, out-

sourcing it to subcontractors in or-

der to free up resources for putting

"Ericsson's motto to be first is very

appropriate for us," says Tormod

"Now that competition is becom-

ing increasingly fierce, we have to

standpoint. In the past, it took sever-

volumes. Today that same process

new products into production.

Faster product releases

Kristiansen.

new base stations into full produc- release new products faster, even

tion - both the new versions for as those products become increas-

GSM and those for 3G. This requires ingly complicated from a technical

velopment team, which we have," al months to develop a prototype

says Tormod Kristiansen, manager and bring up production to large

**Gunilla Tamm** gunilla.tamm@lme.ericsson.se

can be completed in just a few volves quickly bringing up produc- weeks."

#### 2G base stations important

Even though a lot of attention is currently being paid to 3G, Kristiansen emphasizes that base stations for 2G are still very important for the plant due to the ongoing development that is constantly occurring.

Transferring production to subcontractors, either within Ericsson or externally to Flextronics and SCI, is a very important task, so that the Gävle plant's employees can quickly put new products into production.

Currently, the plant has approximately 2,000 employees, and no increase in the number of employees is planned.

"We're very happy that the plants

in Kumla and Lynchburg will now level training and many employees start manufacturing products on the have taken the opportunity to fursystems side. We're starting that by ther educate themselves. transferring know-how to employees at those plants as quickly as posand Lynchburg makes us more flexible," says Tormod Kristiansen.

#### Strategic expertise

Although continuous skill development is of the same importance at the Gävle plant as anywhere else within Ericsson, special emphasis has been placed this year on promoting a skills exchange project, phasis on the need for appropriate 2G. skills.

An increasing number of tasks within the plant require university-

Test development, logistics, leadership and project management are sible. The collaboration with Kumla some of the areas that Tormod Kristiansen cites as strategic skills.

When it comes to test development, this involves pioneering technology - an area where the plant is at the leading edge, closely collaborating with Mid-Sweden University College in Gävle.

Next spring, the plant will be manufacturing large volumes for 3G while simultaneously introducing aimed at placing even greater em- many new base station products for

"Of course, that will be a challenging assignment, but with talented employees and good collaboration

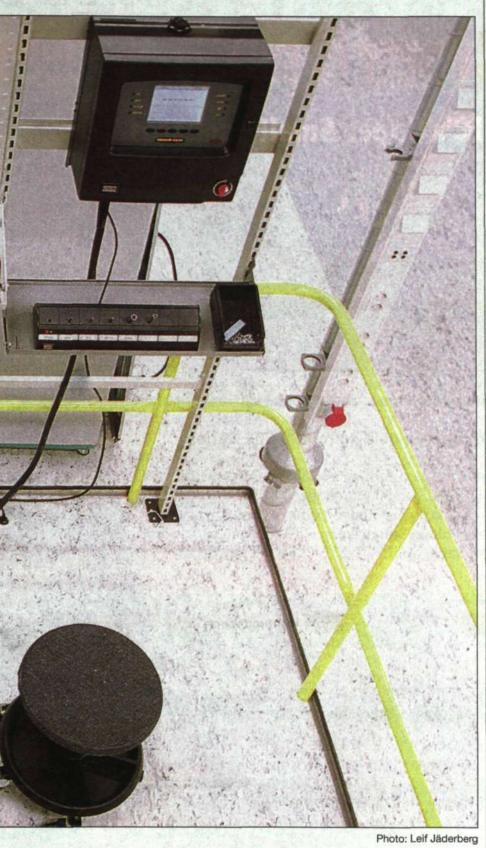


with Kumla and Lynchburg, we'll be able to manage it," concludes Tormod Kristiansen, without looking the least bit worried.



9

# production



#### FACTS/SHORT HISTORY

- 1978 Gävle plant comes under Ericsson ownership as a result of Svenska Radio Aktiebolaget (SRA) - owned by Ericsson and Marconi - buying the plant from Sonab.
- 1981 Gävle plant manufactures systems and telephones for the NMT analog mobile phone • 2000 - The new facilities are inausystem, one of the first-generation systems.
- 1983 Ericsson buys out Marconi's share of SRA and forms Ericsson Radio Systems. The Gävle plant focuses on the manufacture of radio base stations for non-Nordic markets. Start of production of analog systems TACS and AMPS.
- tion digital mobile systems. Four of the future.

years later, all analog products are outsourced.

- · 1992 Gävle plant begins production of PDC equipment for Japan.
- 1993 Gävle plant receives primary responsibility for base station manufacturing within the company.
- gurated on September 15.

Developing prototypes, putting them into production, and bringing mass production up to stable levels before outsourcing production to another plant within or outside of Ericsson those are the tasks that make the Gävle plant a strategically important production unit for the company. • 1991 - Production begins of the producing products for both the GSM and TDMA second-genera- mobile systems of today and those



"Thanks to 3GPP's role as a coordinating group for the six major standardization institutions, work on developing a common global WCDMA standard has been completed in record time," says Jonas Sundborg, who led Ericsson's involvement in the work to develop the first 3GPP release. Photo: Lars Åströn

## Ericsson key architect of global standard

The 3GPP working group was rewarded in October for having managed to harmonize several different WCDMA solutions into a single global mobile standard.

Ericsson has played a major role in the creation and promotion of a worldwide standard, and has been the source of roughly one-third of the technical specifications.

The Third Generation Partnership Project (3GPP) was established in December 1998, based partly on an initiative by Ericsson, as a common organization for the major standardization institutions. The purpose was to give increased impetus to harmonization of the various WCDMA solutions that existed in Europe, Japan, the US. Korea and China.

"The recognition that we have now received means a great deal to the industry and shows that we have all managed to form a strong base on which to develop systems and products," says Jonas Sundborg, who was the overall project manager for Ericsson's 3GPP standardization project, which developed the first version

Five different working groups within 3GPP have resolved technical specifications dealing with the backbone network, radio access network, terminals and other service and system aspects, including the entire system architecture. It took just over one year to reach the first milestone

FACTS/ERICSSON GSM PRO

3GPP = Third Generation Partnership Project

3GPP2 = Corresponding group for transition from cdmaOne to thirdgeneration cdma2000 ETSI = European Telecommunica-

- tions Standards Institute ARIB = Association of Radio Indus-
- tries and Business (Japan)
- TTC = Telecommunications Technology Committee (Japan)
- T1P1 = Wireless/Mobile services

3GPP release 99, later renamed release 3.

Harmonization work first managed to combine ETSI's European proposal with the Japanese proposal from the corresponding body, ARIB.

Later the US, Korea and China joined the agreement. In March 2000, the group was able to present the global technical standard. They had resolved the radio access issues. the backbone network and the ar chitecture

"Standardization work has been very intense and Ericsson has both held posts on the 3GPP's management group and participated in all work groups," says Jonas Sundborg. Altogether, over 200 people from Ericsson have worked on the project. "We've also had local members working with every standardizing institute. Employees from Nippon Ericsson KK are participating in the work of ARIB and TTC, for example. It is hardly an exaggeration to say that Ericsson, in many respects, has propelled the work forward with well founded proposals for technical solutions.

"Now we're continuing our work with releases 4 and 5, which are scheduled to be ready in March and December 2001, respectively," says Jonas Sundborg

3GPP was awarded a prize at the UMTS World Congress 2000 in Barcelona, Spain.

Lars Cederquist

- and systems technical subcommittee (USA)
- TTA = Telecommunications Technology Association (Korea)
- CWTS = China Wireless Telecommunication Standard group
- UMTS = Universal Mobile Telecommunication System
- WCDMA = Wideband Code Division Multiple Access (radio access method for third-generation mobile networks)

**Gunilla Tamm** 

# SIL is No.1 CMOS Power IC supplier in Japan

## **SII Power IC's Super Small packages**



Low power consumption High precision

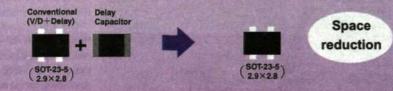
Safety

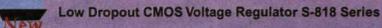
#### SII power IC's are suitable for portable eqiupment



#### Voltage Detector with built-in delay circuit S-801 Series

**Features** Low current consumption 1.3  $\mu$  A typ.(VDD=3.5V) High precision detection voltage  $\pm 2.0\%$ 3 types of delay time 50ms, 100ms, 200ms Detection voltage range 2.2 to 6.0V (0.1V step) Small package 5-pin SOT-23-5 (2.8 × 2.9 mm)





Small

Low current consumption 30 µ A typ. Features

> Output voltage 2.0 to 6.0V (0.1V stop) Peak output current 300mA capable(5.0V output product, VIN=6V)

Low dropout voltage 170mV typ.(5.0V output product, Iout=60mA)

A ceramic capacitor(2 µ F or more) can be used as an output capacitor

Buil-in power-off circuit small package 5-Pin SOT-23-5(2.8 × 2.9 mm) SOT-89-5 (4.5 × 4.5 mm)

#### Super Small CMOS Voltage Regulator S-817 Series

Low current consumption 1.2 µ A typ. Output voltage 1.1 to 6.0V (0.1V stop) High precision ±2.0% Low ESR capacitor can be used as the output capacitor (ceramic capacitor of 0.1 µ F or more)

Super small package SC-82AB (2.0 × 2.1 mm) SOT-23-5 (2.8 × 2.9 mm)

SII Atlanta Representative office Atlanta Phone: +1-770 804 6425 Fax :+1-770 804 6426

SII Sweden Representative office Sweden Phone : +46-(0)8-759 35 50 Fax :+46-(0)8-38-10-35 E-mail : sii@eqruppen.se

Seiko Instruments Inc.

Features

UK Branch Phone: +44-(0)1403 246 766 Fax :+44-(0)1403 246 751 E-mail : butty@dial.pipex.com

S and a second design

# The new economy will be turned to business success

A new product portfolio and Web portal were demonstrated at a strategic meeting of the Global Services Division held in Stockholm at the end of October. Some 700 participants listened to how the new economy functions in conjunction with service sales to operators.

The theme of the day at the division meeting in Stockholm was "Making sense of the new economy."

A new product portfolio and new Web portal are clear examples of the division's intensified focus. Over the course of the day, several examples were provided to demonstrate how the Global Services Division will turn the new economy into a business success.

"This is a new and exciting playing field for Ericsson. The new economy is opening up potential new markets. Service sales are in store for the future. We're going to take advantage of that," says Bert Nordberg, Executive Vice President, Global Services Division.

Service sales were given increased priority as part of Ericsson's reorganization plan earlier this year and these operations have now been combined into a single division. In the past, services were more or less tied to product sales,

NERA

but, in the new economy, more advanced services can be offered. It is hoped that the company will be able to charge more as a result.

#### Every time zone covered

In order to meet the needs of customers, regional offices have been set up in every market area. By having an office in every time zone, the division is able to provide 24-hour service. The new portfolio consists of four areas: Competence development, Network rollout, Customer services, and Telecom management and Professional services.

Bert Nordberg believes strongly in localizing the operation of networks.

"Many operators no longer want to operate their own networks. In those cases, we're available to assist with our considerable experience and broad expertise, allowing operators to concentrate instead on managing their customers. Already, we operate approximately ten networks and there is a great deal of interest from many operators."

Examples of networks that Global Services has responsibility for include Orange in Israel and Oskar in the Czech Republic (see article in Contact 17).

How does this coincide with Ericsson's intention of not becoming an operator?

"We only oversee networks on behalf of operators. While this does constitute a change, it is difficult to say what the cause is. However, it is clear that operators are becoming increasingly virtual, concentrating on their actual core operation - namely, taking care of and overseeing their customers."

#### **Good prospects**

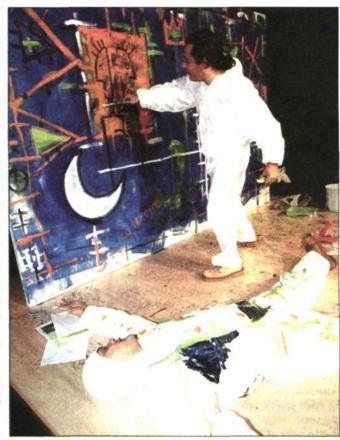
New generations of mobile networks, reduced emphasis on hardware and new kinds of services - these are the realities that await the Global Services Division.

"It also means we'll have new kinds of competitors. This service area is already attracting large companies such as IBM," says Bert Nordberg.

Despite favorable prospects for the future, this is a relatively major change for Ericsson and the division's 17,000 employees. A large portion of the gathering in Stockholm dealt specifically with how these changes will be handled.

> Mats Lundström mats.lundstrom@ime.ericsson.se

Footnote: Global Services will be orgafuture.



nizing three customer meetings and During their lunch break, participants at the Global Services Divianother internal meeting in the near sion's strategic meeting were provided with colorful entertainment. Photo: Ecke Kühler

# **GENERATING SOLUTIONS**

### For high capacity networks

Through its leadership in SDH broadband radio-link systems, Nera has become the natural business partner with Ericsson, providing total solutions for high capacity wireless networks around the world.

With the ever increasing demand for mobile communications in both voice and data, the ability for rapid installation and commissioning of new networks is crucial to meeting that demand.

To that end, there exists an OEM agreement between Ericsson and Nera that is managed by Ericsson's Product Unit Optical Networks Group in Horsham, UK.

Moreover, Ericsson and Nera are working successfully together on a number of major high capacity radio-link network projects including:

- Large scale development of Poland's mobile phone network
- Construction of a new SDH backbone mobile phone network in Morocco
- Supply of SDH radio-link equipment and services for the metropolitan area in Bogota, Colombia and a high capacity network in Sao Paulo City, Brazil

For the cost-effective total solution to high capacity radio-link networks, one call to Nera from Ericsson was all it took.

### ERICSSON

Nera Networks AS, Bergen, Norway. Tel: +47 55 22 51 00 Fax: +47 55 22 52 99 citylink@nera.no website: http//www.nera.no



TELECOMMUNICATIONS

#### CHANGING THE WAY WE COMMUNICATE

#### 2 WORLD WATCH

#### Abrupt end to Italian Auction

➤ Italy's 3G auction came to an abrupt end when Blu, one of the consortiums, withdrew from the bid process after only two days. As a result, there was one license available for each of the five remaining bidders, and the Italian government raised only USD 2 billion, or about half of the total revenues expected from the auction.

The fiasco has prompted a government investigation to determine if Blu's action violates the Italian competition laws. The investigation carries considerable importance. If the government can prove that Blu was never a serious bidder, an opportunity would be presented to start the entire bidding process again.

Blu is the smallest mobile operator in Italy, and the company's withdrawal has also created internal strife between Blu's different ownership interests.

Italy used a two-stage selection process. In the first stage, the country's most suitable candidates were selected, while the second stage was conducted as a pure auction.

#### Lucent CEO resigns

>> Richard McGinn, President of Lucent, resigned at the end of October after the American telecom company was forced to issue several profit warnings during the year.

The price of Lucent shares has fallen sharply, down about 70 percent since year-end 1999, erasing values of about USD 180 billion. Operations in the fiberoptic segment have been particularly weak, due mainly to long delays in bringing new products to market.

Henry Schacht was named interim President following McGinn's resignation.

#### Strong report from Alcatel

>> Alcatel's interim report for the first nine months of 2000, which was released at the end of October, was better than expected.

The report triggered an upswing for telecom stocks in all parts of the world, following a sharp decline in the second half of October caused by the failure of major players such as Lucent and Nortel to meet market expectations.

The French telecom giant reported profits of EUR 619 million, which was double corresponding earnings in the year-earlier period and much higher than analyst expectations. Alcatel also increased its projected earnings for fullyear 2000. The company's strengths lie mainly in fiber optics and sales of Internet-related equipment.

#### Unexpected turn in Napster case

>> An unexpected turn of events has taken place in the legal battle between major record producing companies and Napster, a software package that supports distribution of music via the Internet.

Bertelsmann, a German entertainment giant and one of the companies behind the law suit against Napster, has now withdrawn its allegations and enter an agreement with Napster to commercialize the distribution channel.

Napster has more than 35 million users and is considered to be one of the most important "killer applications" to hit the market in recent years.



"I love technology, but it wasn't easy to configure a WAP-telephone," says Gerrit Wolf, who says it reminds him of how difficult was to get started with Internet technologies 10 years ago. During his one-year assignment in Sweden, the visiting professor from the US plans to study how people use their mobile telephones. Photo: Lars Åström

# Strong commitment to wireless revolution

Gerrit Wolf is a visiting professor of wireless e-commerce in Stockholm. The professorship is sponsored by Ericsson and other companies.

"Scandinavia is an interesting laboratory for me," he says.

Gerrit Wolf is an American with a very impressive career in academic circles.

His credentials include a professorship at the Hartman School for Management and Policy in New York. Gerrit Wolf has worked primarily in organizational psychology. He also teaches business economics and conducts research work focused on e-commerce and emerging companies in the "new

economy." "The exchange is part of the Fulbright program, a large exchange system in the academic world. This year also marks the first time Sweden has been awarded two professorships, but the circumstances are slightly unusual," explains Gerrit Wolf.

"Most exchanges under the Fulbright program are focused on the humanities, and they are generally government financed."

"I am from a business economic faculty, however, and my professorship is financed by private interests." Gerrit Wolf thought it was an in-

Gerrit Wolf thought it was an innovative concept to develop the Fulbright program in a new and different direction from its traditional focus on the arts.

He is particularly interested in learning how far the "wireless revolution" has progressed in Scandinavia, and how it has affected everyday life.

#### Different from US

"There is an ongoing convergence here between wireless communications and e-commerce. Supported by companies such as Ericsson and Nokia, a critical mass seems to have been created between private industry and users. It's a very interesting situation that does not exist in the US.

"As a psychologist, I am interested in the cultural conditions that have allowed Sweden and neighboring countries to make the amount of progress that they have apparently made in this area," Gerrit Wolf continues.

Mobile telephony penetration is one of the most obvious differences in comparisons with the US, where corresponding penetration has reached only about half the levels achieved in the Scandinavian countries.

Pricing for mobile telephony, it should also be noted, is still relatively expensive in the US. It is also complicated by a structure that obliges call recipients to pay for most calls. There are also more competing systems in the US, in addition to a shortage of available frequencies. Gerrit Wolf also points to another factor.

"The fixed Internet has been an extremely powerful force in the US, and it's still characterized by strong growth. The everyday habits of private individuals have changed dramatically as a result of the Internet's emergence."

"Most people, however, are so blinded by the Internet that they cannot see what is really happening in the wireless sector."

#### Age-related use

According to Gerrit Wolf, mobile telephones are used in the US primarily to announce changes in private plans and itineraries: 'I'm going to be late,' 'We have to change the time of the meeting,' and similar messages.

How the telephones are used in countries with exceptionally high penetration is a typical question that Gerrit Wolf asks in his capacity as visiting professor.

"It's quite clear that usage is related to age. Young men and women, for example, seem to use their mobile telephones to strengthen the sense of belonging to certain groups. SMS offers a means of underlining a person's group identity," he says.

But what course of development will follow for the new generation of wireless communication devices? Will e-commerce change when it becomes wireless, for example?

"Probably," says Gerrit Wolf. "Otherwise, it would not be as interesting for me. I am anxious to see how e-commerce will change from the customer's perspective, to see if new purchasing patterns are established over the long term."

#### Early stage

Gerrit Wolf is looking for answers to a broad range of questions. He is now in the early stage of his assignment, focusing mainly on developing a network of contacts in the companies that are sponsoring his professorship, which include Ericsson, Telia, IBM Sweden and Brainheart, a venture capital company.

He hopes to conduct an empiric study and establish contacts with key groups within Telia and Ericsson, both of which conduct continuous studies of new developments.

"The ideal situation would be the availability of a database filled with information about user behavioral patterns."

#### WORLD WATCH

## New supplier of mobile services

Wireless Internet is changing the ground rules and providing greater scope for new market players. A typical example is Mviva, a mobile portal operated by Carphone Warehouse, one of Europe's leading retailers.

"We have a unique opportunity to capture a leadership position in mobile Internet services," says Stefan Gidlund, Executive Vice President of Geab The Phone House, the Swedish subsidiary of Carphone Warehouse.

Although wireless Internet has not reached any form of critical mass, market players have already initiated serious efforts to establish their positions in preparation for the anticipated revolution in wireless services.

One example is reflected in aggressive efforts by Carphone Warehouse (CPW), one of the largest mobile telephone retailers in Europe. With its Mviva portal, CPW is now entering a new area of business operations as a provider of mobile services.

"Historically, retailers have not been able to develop their own services without cooperating with telecom operators. With the emergence of WAP, however, traditional operators will face increased competition," says Stefan Gidlund.

Mviva is not much different from other mobile portals in terms of content, which is dominated by three basic features: information, communications and transactions.

Content, accordingly, will not be the key factor in the selection of Mviva by end users.

Instead, it will be the retailer's unique possibilities to preset mobile telephones for Mviva services when they are bought in CPW stores. Although all telephones sold are not equipped with WAP, Mviva will have an advantageous starting position.

"Our opportunity to preset mobile telephones for Mviva services naturally provides a significant competitive edge. We will offer simplicity by providing functionality without the need for end-customers to concern themselves with presetting requirements. We meet thousands of customers every day in our sales outlets in different parts of Europe. It simply makes good business sense to offer them CPW's own mobile services free of charge," says Stefan Gidlund.

CPW is the only player in the retail chain with a pan-European presence comprising about 1,000 stores in 14 countries. Since its shares were listed on the London Stock Exchange, CPW has expanded rapidly through acquisitions. Its subsidiary in Sweden, Geab The Phone House, has a 12-percent share of the Swedish mobile telephone market, corresponding to sales of about 300,000 telephones per year.

CPW's focus on Mviva has also attracted the attention of America Online (AOL), which recently acquired a 15-percent ownership share in the portal for USD 25 million.

Judy Buckley, the Swedish manager of Mviva, says the portal will be launched soon in several European countries.

Mats Lundström

## **TIM dominates Italy**

Although there are bigger operator conglomerates, Telecom Italia Mobile, (TIM) with over 20 million subscribers,

is the world's single largest GSM operator. TIM has been a remarkable success story and Ericsson has been at its side throughout, supplying equipment and services to the operator.

"TIM has successfully handled the transition from a privileged monopoly position to operating in a highly competitive market, without losing its market leadership," says Valter D'Avino, Ericsson's Global Account Executive.

Approximately 55 percent of the Italian market is controlled by TIM, with its next largest competitors, Omnitel and Wind, controlling 35 and 9 percent respectively. TIM has only been in operation as an independent company since 1995, although the stateowned Telecom Italia previously had a mobile division.

Today, state ownership has been reduced to less than 4 percent, while the Olivetti Group is the majority shareholder at almost 55 percent.

"Ericsson was named sole supplier for TIM's TACS analog network back in 1990. Ericsson also holds a very strong position as the company's primary GSM supplier," says Valter D'Avino.

As a result, Ericsson has supplied entire GSM systems, including switches and radio parts. Recently, fairly extensive GPRS equipment has also been supplied. Altogether, invoiced sales to TIM this year total SEK 18.2 billion.

That figure also includes TIM's extensive operations in a number of countries in Europe

(Spain, Austria, Serbia and France) and Latin America, especially Brazil, Chile, Argentina and Peru. TIM also has minor interests in China, Ukraine and Portugal. Combined, these operations encompass over 40 million subscribers.

The Italian market has many interesting characteristics. One of them is the complete dominance of prepaid subscriptions. A total of 85 percent of TIM's subscribers in Italy pay for their subscriptions in advance, making Italy one of the world's biggest markets for prepaid subscriptions. TIM has done a good job of meeting market demands, in Valter D'Avino's opinion.

"TIM's marketing has been both consistent and innovative, launching products such as family subscriptions and, of course, prepaid subscriptions," says Valter D'Avino. TIM tendered a bid for



one of the five 3G licenses Valter D'Avino in the recent auction and became one of the winners. Ericsson will sup-

ply the UMTS equipment.

"It's important to remain competitive in the future and TIM has been very determined when it comes to 3G," says Valter D'Avino.

A test network for 3G has been installed in the Turin region of Italy, with positive test results to date.

Mats Lundström

**Footnote:** Previous articles in this series were published in Contact 15 (Hutchison) and Contact 14 (British Telecom).

## With Tektronix, sharing goals means

sharing success . . .

Let us introduce you to Jean-Christophe Ronzier.

Jean-Christophe spends all his time working with Ericsson on behalf of Tektronix. He has many years of experience in test and measurement and would like to share that knowledge and experience with you strategically.

Ericsson is acknowledged as a world leader in communications solutions. And as a totally committed partner, Tektronix is a truly focused, global test, measurement and monitoring company, providing enabling test technologies that turn your ideas into reality.

To Jean-Christophe, your business success is everything. Because in a relationship with Tektronix, your vision is our goal. To take advantage of his knowledge and experience, call him on +46 (8) 477 6559 or email Tektronix-Euro-KeyAccounts@tek.com

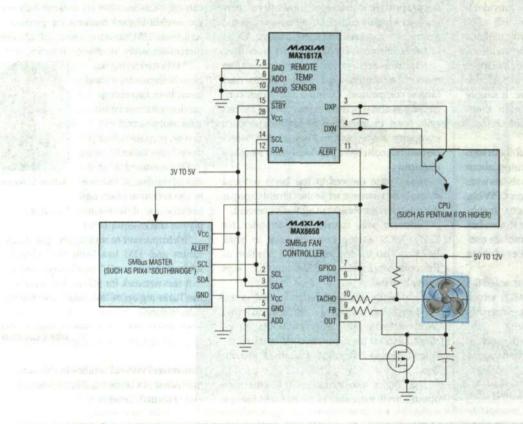


02000 Tektronix, Inc. All rights reserved. Tektronix and the Tektronix logo are registered trademarks of Tektronix, Inc. All others are properties of their holders.

SIMPLE, INTELLIGENT

FAN CONTROL

#### MAX6650/MAX6651—Set Fan Speed Precisely with CLOSED-LOOP Fan Control



- Proportional Fan Control Reduces Fan Noise Output
- Closed-Loop Control Eliminates Startup and Dead-Band Problems
- Notifies CPU of Fan Failure
- Tiny 10-Pin µMAX or Small 16-Pin QSOP Package
- ◆ 2-Wire SMBus<sup>™</sup>/I<sup>2</sup>C<sup>™</sup>-Compatible Interface
- 3.0V to 5.0V Supply Voltage Range

SMBus is a trademark of Intel Corp I<sup>2</sup>C is a trademark of Philips Corp

The MAX6650/MAX6651 give your system the control it needs over its cooling fans. Using a standard SMBus/I<sup>2</sup>C-compatible interface, these highly integrated devices use an external power FET to adjust the DC voltage across a cooling fan. The fan's tachometer output pin provides speed feedback. The result: accurate speed control without complex fan start-up algorithms or multitransistor driver amplifiers. These fan controllers also monitor the fan for faults and generate interrupts when fault conditions occur. The MAX6650 controls and monitors a single fan. The MAX6651 monitors the speed of up to four fans while controlling the speed of one of them. Multiple MAX6651s can be synchronized so that several fans can operate at the same speed. GPIO pins add extra interface capability.

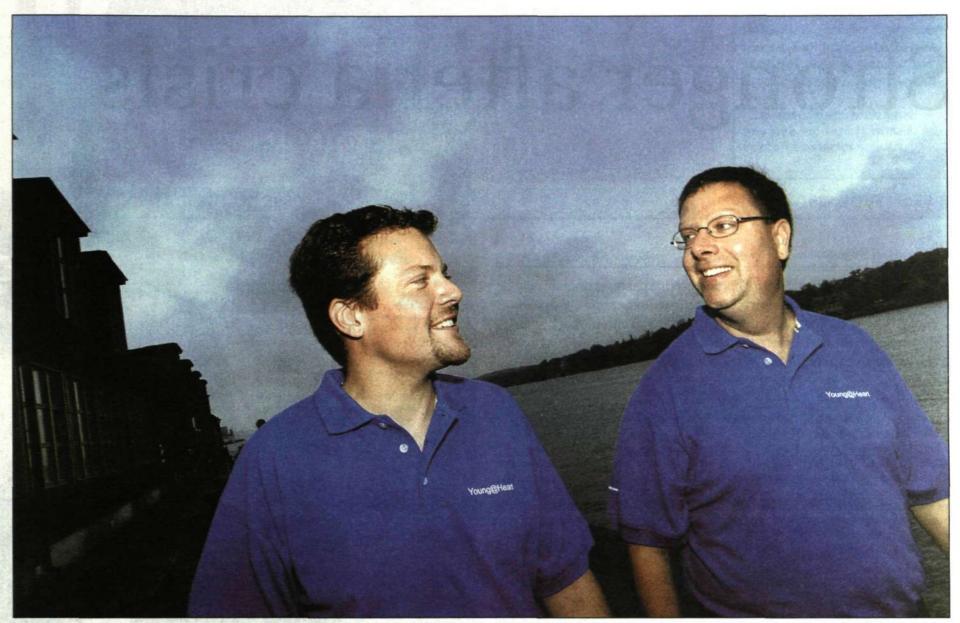
The MAX6650 is available in a 10-pin µMAX package, and the MAX6651 is available in a 16-pin QSOP package.



Distributed by Maxim Distribution, Arrow, Avnet Electronics Marketing, CAM RPC, Digi-Key, Elmo, Nu Horizons, and Zeus. Distributed in Canada by Arrow, and Avnet Electronics Marketing.

Austria, Maxim GmbH (Deutschland); Belgium, Master Chips; Czech Republic, Spezial-Electronic KG; Denmark, Arrow Denmark A/S; Finland, ACTE NC Finland Oy; France, Maxim France, Distributors: Maxim Distributors: Maxim Distributors: Maxim Distributors: Maxim Distributors: Maxim Distributors: Maxim Distributors: Eco Italiana S.p.A; Netherlands, Getronics Telecom Solutions B.V.; Norway, ACTE Norway AS; Poland, SE Spezial Electronic Spolka Z.O.O.; Portugal, Avnet-ADM Electronics, S.A.; Russia, SE Spezial-Electronic ZAO; Spain, Maxim Distribución, Avnet-ADM Electronics, S.A.; Sweden, Maxim Sweden, Egevo Elektronik AB; Switzerland, Maxim Integrated Products (U.K.), Ltd., Distributors: Maxim Distribution (U.K.), Ltd., 2001 Electronic Components, Eurodis HB Electronics; Ukraine, Spezial-Electronic KG.

MAXIM is a registered trademark of Maxim Integrated Products. @ 2000 Maxim Integrated Products.



Per-Olof Persson and Stefan Elgeryd have become good friends over the course of the Partnership Program. They believe that the social aspects of collaboration are important, but emphasize that it is vital to create formats in which individuals are replaceable.
Photo: Eduardo Valenzuela

# Alliances open door to mobile Internet

Ericsson in Sweden and Telia Mobile have joined forces in the 3G market. Through the Partnership Program, groups from each company have analyzed the underlying forces at work within the telecom industry. Just what will be required in order to become a world leader in mobile Internet during the coming year?

The answer to that is partnership.

Fifteen people from Ericsson Sweden and a similar number from Telia Mobile have been collaborating this past summer and autumn through a program known as the Partnership Program.

The idea was to create a shared image of the new telecom industry and a framework for future collaboration between Ericsson in Sweden and Telia Mobile.

"This effort is rather unique," says Hans Löhr, head of the program at Ericsson Management Institute, and one of the initiators of the project. "It has been done in an

explorative manner. It's not simply about solving a Hans Löhr daily problem together."

In February, the Management Institute presented its concept to Ericsson in Sweden. They, in turn, contacted Telia Mobile. The

companies then selected participants to create a dynamic group.

In May of this year, work got underway and the project was implemented in three stages.

Initially, the 30 participants traveled to Silicon Valley to learn from developments in the Bay Area. They visited new companies with innovative solutions in areas such as the applications industry.

#### Four themes

In order to gain an understanding of the European market, a similar visit was made to London. Participants then reflected on their experiences during a meeting in Sandhamn in Sweden.

The final results were presented to management at Telia Mobile and Ericsson in Sweden during a meeting in Stockholm at the beginning of October.

Participants focused on four themes that are key for those who would like to have market share within the mobile Internet field:

Business Drivers – What is the core and what are the driving forces in tomorrow's mobile industry?

The group determined that those who wish to dominate the mobile Internet should focus on people who are young and who are seeking fast-paced experiences. This is a resource-intensive category that wants to be entertained.

**Business Models** – Which products attract this category of people?

Products can only be developed in real customer situations. Nobody can simply sit in their office and predict what the next big application will be. Ideas have to be developed in conjunction with customers. The target group is short on time but has plenty of disposable income. As a result, products which save customers time have an edge.

Storytelling – What sort of story or image of the company do you want to present to the market, to customers, to the media and to competitors?

When many companies are vying for a customer's attention, it is important to generate confidence. Values that identify the company need to be presented in a logical manner. They should be appealing and simple. It is a question of universal human psychology.

**Partnership** – What is required in order to initiate collaboration? Nobody is superior in every area, so in order to quickly reach one's target, partnerships are required. The group that worked on this theme concluded that those companies who succeed the most in their collaborative efforts, take cultural and value differences seriously.

It is important to elevate and accept these differences. It's not possible to behave as if they don't exist. Per-Olof Persson, head of product marketing at Ericsson in Sweden and Stefan Elgeryd, head of operational development at Telia Mobile, both participated in the project. They view it as a collaborative framework that will support other new joint efforts.

"In certain instances, alliances are necessary. The mobile Internet is one such instance," says Per-Olof Persson.

They both believe that the project has been positive, for the company as well as themselves as individuals.

"I was hesitant in the beginning since I didn't really know what it was all about, but it has been very rewarding. The one month that I have put into this has been just as instructive as several years of work," says Per-Olof Persson.

#### Stay in Stockholm

Östen Mäkitalo, director with strategic responsibility for innovation and future issues at Telia Mobile, is also very satisfied.

"It's important that we follow up. Now that the wheels are turning, we don't want them to slow down."

He points out that Ericsson should be eager to remain in Stockholm and not slide over to London. Stockholm is known as "Mobile Valley," the world's center for mobile communications.

"Telia and Ericsson have built this up together and we should expand on that," says Östen Mäkitalo.



# Stronger after a crisis

In the span of a few hours, Ulrika Thorildsson's life changed dramatically as she was violently beaten during a business trip to Romania.

This crisis has in many

as a person.

Today, three years later, she has learned to live with chronic neck pain, while her fear of the dark lessens daily.

"I have learned to accept that I can't be in control of every situation," she says.

Ericsson Radio was in Bucharest, Romania, to install AXE switches for one of the nation's mobile operators. It all happened after a her return home. Her manager contacted corfarewell dinner. Ulrika took a taxi with two porate medical services to find out what type

other colleagues back to the hotel, but instead of dropping them off at the entrance, the driver took them to an alley behind the hotel. A gang of thugs dragged them out of the car and beat

"We were completely taken by surprise. They sprayed some sort of gas in our faces and started beating us. The strange thing is that it wasn't a robbery. I still had my wallet with its contents and my earrings when I regained consciousness," Ulrika Thorildsson relates.

For her, the worst aspect of the incident was the feeling of powerlessness. She blamed herself for not having defended herself more. She was very proud of a bite mark that she had for three months, a mark which symbolized that she held on to one of the perpetrators so tightly that he had to bite her to break free.

"I remember waking up while lying on the ground. In a fit of rage, I got up on my feet, ran to our attackers and hit them as hard as I could, which in hindsight was very stupid, since I was outnumbered and they were stronger than I was," she says.

Ulrika and her colleagues sustained no serious physical injuries and managed to re-enter the hotel, where personnel called police and an ambulance.

"When I arrived at the hospital and was greeted by a doctor in a bathrobe, smoking a cigarette and wearing bloody gloves, I just thought to myself, 'I want to go home."

The next day, Ulrika booked a flight home for herself and a colleague. Mond Dial, a med-

A crisis involves a loss of control,

rings frequently every time the

scription.

which can leave victims feeling very

vulnerable. Ericsson company doctor

Anne Peterberg's emergency hotline

company decides to send doctors or

psychologists to help people in crisis.

> The word crisis means "a point in life beyond

Although a crisis can be painful and take time

which nothing is the same," a very telling de-

> The attack took place when a group from ical information service, was contacted and sent a car to take them to the airport. Ulrika was on sick leave for two weeks after

of support the victims

were entitled to. They suggested speaking with a counselor to determine ways helped me develop what kinds of emotional scars the attack had left behind.

When the counselor

pened, Ulrika was skeptical at first. But looking back, she is glad that she did.

went by that I didn't think about the attack. I'd never been afraid of the dark, but I suddenly felt uneasy as soon as I was alone after dark. I started imagining that someone had broken into my car and was waiting for me to return," she savs.

sounding board for my worries. She helped me could explain why I reacted as I did."

going out in the evening as she used to be.

something like this will ever happen again. op as a person. Today, I can accept my weaknesses as well as my strengths," she concludes.

suggested that Ulrika see a psychologist to deal with what had hap-

"In the subsequent two years, not a day

"The psychologist served as an excellent see the situation in a new perspective and

Now, three years later, Ulrika Thorildsson feels much better. She has a neck injury that will never heal, but she has learned to live with the pain. Her fear of the dark has subsided considerably, although she is not as keen on

"I have accepted that I can never know if This crisis has in many ways helped me devel-

Professional support a necessity

TT

to work through, people who receive positive

help with the process, grow as individuals, tak-

The first thing that occurs during a serious crisis

is that the victim goes into a state of shock, los-

ing track of time as well as their ability to think

logically. Even their perception of light and

sound becomes amplified. In an effort to protect

themselves, victims frequently repress the

events or shut themselves off from the outside

"It's important to move out of the shock phase

as quickly as possible and start talking about

what has occurred. A psychologist or behavioral-

ing away invaluable life experiences.

**Getting over chock** 

world

Ulrika Nybäck

After she was attacked three years ago, Ulrika Thorildsson realized she would never be the same again. Today, she has learned to live with her chronic neck pain and her fear of the dark is subsiding. She urges everyone who is faced with a similar situation to seek help. "Feeling guilt is normal, and you have the right to feel whatever you do after the incident, regardless of what those sentiments are."

sleep patterns.

These are normal reactions to "abnormal"

to talk about and work through what happened.

An important part of that dialog involves helping

individuals avoid experiencing delayed reac-

For people who do not receive support during

this phase, there is a risk that they will try to

mask their anxieties through alcohol or pills and

tions to a traumatic event in the future.

Crisis hotline always open

become addicted.

ist can guide the conversation in an appropriate

direction, so that the experience can be worked

through without triggering lingering aftereffects

She is involved in developing guidelines and

policies for the company's health and preventa-

tive care programs as well as for drug and crisis

Behavioralists know which kinds of experi-

ences patients normally hide or suppress. For

example, in cases of assault and rape, feelings of

guilt are always involved. Although friends pro-

During the next phase, the reaction phase,

vide important support during and after a crisis,

intervention programs.

they fulfill a different function.

from the event unnecessarily," says Anne Peter-

berg, company doctor at Ericsson in Sweden.

# victims often experience feelings of fear, worry,

terberg. She can always be events. During this phase, it is incredibly important that victims seek professional help in order

Anne Peterberg is called Anne once a decision has been Peterberg made to send in a doctor to a country where there is a crisis, or when medical information is needed.

quently receive support through the local com-

hatred, and denial as well as disturbances in

reached by Ericsson's crisis group on a crisis hotline. (See article top right.)

pany."

life, such as ending a rela tionship," warns Anne Pe-

# Specialist group makes tough decisions

An earthquake in Turkey, flooding in China, a murder in the US. During times of crisis and disaster, Ericsson's crisis group swings into action. Coordinating with local companies, they send doctors, psychologists and IT specialists all over the globe to assist Ericsson employees in need.

> The office belonging to Ericsson's head of security is unmistakable.

His door is equipped with a heavy-duty lock and just inside the door hangs a bulletproof vest. Thomas Petersson is much more laid back than I had expected. He laughs, somewhat resignedly, about the fact that I don't have any idea what phone number to use for emergency assistance when traveling overseas.

#### Core group of five

Thomas Petersson is one of five people who sit on Ericsson's Crisis Management Council.

The group consists of Magnus Ask, a specialist in human resources issues, chief counsel Carl Olof Blomqvist, marketer Rolf Granström and Lars Stålberg, the outgoing chairman.

These five form the core of the crisis group. IT specialists, doctors, psychologists and behavioralists are called in depending on the nature of the disaster. Members of the crisis group have extensive contact networks; nine times out of ten they find out about events either before or at the same time as the media.

"We always start by contacting the head of security at the local company or the ambassador in the country

where the disaster has

occurred. Although Turkey

has suffered an earthquake,

Petersson

Petersson is careful to emphasize that while the crisis group is primarily a decision-making

"We can't sit in Stockholm and decide which measures are necessary. That must be done in conjunction with the local company that has

Once the extent of an accident or disaster is



body, it also has a support role.

been affected."



Extensive devastation followed in the wake of major flooding in Venezuela last year

known, the group decides which measures need to be taken. Subsequent to that, loved ones, the management group and the press group are informed, with the latter being responsible for fielding all questions from the media.

All too often, the crisis group is forced to answer questions that should be dealt with at the local level, for example, in conjunction with the getting the appropriate vaccinations prior to detheft of wallets, computers and mobile phones or burglaries. There are, however, always exceptions to the rule - such as kidnappings and computer virus attacks, which are instances when the crisis group should be involved immediately.

#### Sound advice

The flooding in Venezuela a year ago is a good example of a disaster that was dealt with at the local level. Everything happened very quickly large volumes of water overwhelmed the infrastructure meaning nobody was able to leave the country. The crisis group decided that it was too risky to fly assistance in, since both airports in and near the capital city Caracas were waterlogged.

"In this instance, we received significant help from our contacts at Ericsson in Dallas and Miami, who arranged for help to be flown in once the floodwaters had receded, and to evacuate employees who were there for shorter stays," says Thomas Petersson.

In conclusion, Thomas Petersson would like to provide some general advice.

"Common sense goes a long way. For example, you should not get drunk in bars in Mexico or South Africa or brag about how much money you make. And think especially about medical issues from a preventative standpoint - such as parture and taking a first-aid kit with you, which can be obtained from the company health service.

#### Ulrika Nybäck

Foto: Pressens Bild

17

CONTACT No. 18 2000

#### http://inside.ericsson.se/security/

More on the Crisis Management Guidelines can be found at

Maintenance Mai corporate\_directives.html

Important phone number for those who travel on business

- · Ericsson Emergency, linked to an emergency alarm service: + 46 - 8 - 24 10 10
- Various phone numbers in different countries are available for healthcare information and medical assistance. Contact the company health service or doctor for more information.



Photo: Lars Åström



"The primary rule is that we go when we're asked, if the crisis involves more than one individual. If there is only one victim, they can fre-

overseas, it is to deal with serious incidents that have occurred – natural catastrophes, assault or murder.

The most recent major event occurred in Naijing, China, where a neighboring family to Ericsson employees were murdered. All of the neighbors, as well as the international school teachers and students, were in shock and in need of therapy and assistance in dealing with the situation.

#### Needed to talk

"We assisted more or less everyone who resided on campus. They received help in the form of discussion therapy, while those who needed it received follow-up support. I was very relieved that nobody needed to return home," says Anne Peterberg.

functioning organization is available to provide healthcare information and assistance through an emergency alarm service connected to Erics-

> Another advantage is that the crisis group has good contacts with embassies which can, for example, assist in providing visas within a few hours.

> Nothing, however, is so good that it cannot be improved upon.

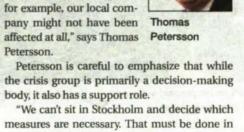
> "I feel confident with the medical and human care that we are able to offer today. Of course, we could always expand our network, perhaps adding behavioralists and doctors all over the world," says Anne Peterberg.

FACTS/FOUR CRISIS PHASES

Shock phase: The victims lose their ability to think logically, as well as their sense of time. Their perception of light and sound is amplified. Repressing an event that has occurred is commonplace. A victim can act confused.

Reaction phase: The victim is sensitive, feels anxiety, sees danger everywhere. Denial of what has happened is commonplace. They activate their defense mechanisms. In order to avoid engaging in destructive behavior, the victim needs someone to talk to.

Analysis phase: The victim begins to gain perspective on what has happened and is able to talk about the event. Starts looking ahead again. Reorientation phase: Through the crisis. Incorporates the event as an important life experience.



# Major challenges await in South Africa

The telecom sector is expanding rapidly in South Africa and Ericsson can expect to encounter several challenges.

8 SPOTLIGHT ON SOUTH AFRICA

"South Africa has the potential to be the driving force for the entire region," says Christer Hohenthal, Managing Director of Ericsson South Africa (ESA).

> South Africa has developed strongly since the scrapping of apartheid laws at the beginning of the 1990s. Problems still exist, but the country is politically stable and the economy is improving. In the same way, the telecom sector has also advanced, particularly in the area of mobile networks. Last year, the country was rated the fourth most rapidly expanding GSM market in the world and the two operators, Vodacom and MTN, are growing by around 50 percent per year. Between them, they have around 7 million subscribers, primarily in the

form of prepaid subscriptions. Ericsson arrived in South Africa at the time of the liberation. Since then, sales have risen from a couple of hundred million to a forecast SEK 2.5 billion for the current year.

"We have built up the business unaided during the 1990s and now have a highly competent workforce of slightly more than 200 people, who are really expert in our core operations," says Hohenthal.

The largest customer on Christer the mobile front is MTN, Hohenthal an operator that has cap-

tured 40 percent of the market since obtaining a GSM license in 1993. Ericsson has been successful in maintaining its position as sole supplier to MTN, despite constantly accelerating growth rates over a period of several years.

#### **Transmission monopoly**

The South African telecom market is not completely deregulated. One semi governmentowned company, Telkom, remains responsible for wireline telephony operations.

"Telkom also has a monopoly on transmission, including the transmission required by mobile operators. The need for links between base stations and switches has thus created substantial demand for our MINILINK units," says Christer Hohenthal.

However, that is the only business that Ericsson conducts with Telkom, which in other respects continues to use the suppliers it had several months later, at the beginning of Sep- Literacy (over 15 years of age): 81.8 percent during the apartheid era, primarily Siemens tember, that a court in Pretoria ruled that the and Alcatel. However, Christer Hohenthal has major expectations that this situation will change when full deregulation takes place about a year's time.

"We have recently been awarded a gold quality seal from Telkom for our deliveries of MINILINK. As full deregulation approaches, we are positioning ourselves with the help of a Multi Service Networks Engine, among other solutions.

"But you have to remember that Telkom is a large institution, so it's not so easy to change thing that it lacks," says Hohenthal, who adds: their way of thinking. Despite that, we regard this as an ideal time to stir things up," hopes Hohenthal.

Although it has been known for several years that South Africa would get a third GSM li-

cense, this has been a long drawn-out process. The outcome has been quite clear since last summer, when the responsible authority at that time, the South African Telecommunications Regulatory Authority (SATRA), decided to award the license to Cell-C, backed by the conglomerate Saudi Oger and America's Verizon Communications.

Capetown's Waterfront, South Aftrica's most visited shopping center.

One of the competing consortiums appealed against the process and it was not until appeal was unreasonable.

probably make a formal announcement this USD 20,700, Tanzania: USD 550). autumn that Cell-C will be awarded the li-

#### Time and resources

"Cell-C has worked hard to obtain the license. Operatively, the consortium does not have a lot of experience but that is unimportant, since if it appoints us as supplier, we will fix every-

"We have already invested time, resources and planning power - now we have to show perseverance."

MTN, a major Ericsson customer, has plans for aggressive expansion outside South Africa

#### FACTS/SOUTH AFRICA

Area: 1,219,912 square km (more than 2.5 times the size of Sweden and nearly twice the size of Texas).

Population: 43.5 million (1999). Black 75.2 percent, white 13.6 percent, colored 8.6 percent, Indian 2.6 percent

Life expectancy: 51.1 years

Form of government: Republic Unemp ment: 30 percent The Department of Communications will GDP per capita: USD 6,900 (Sweden:

and has already secured a large number of licenses in other countries south of the Sahara, including Uganda, Congo, Rwanda and Cameroon. MTN also has the possibility to secure a license in Nigeria

Since ESA also supplies other operators in southern Africa, the local company has had to assume greater regional responsibility.

"We have never looked at the rest of Africa. That has been the responsibility of other units within Ericsson. Without having really sought FACTS/TELECOM

- · During the apartheid era, there were 60 telephones per 100 white members of population and 1 telephone per 100 black members.
- · Telkom is responsible for the wireline network in S. Africa, with five million subscribers. (Telkom is a public utility, however, deregulation is scheduled for 2002).
- · Two operators hold one GSM license, namely MTN (Mobile Telephones Network) and Vodacom. The two operators have around seven million subscribers.
- · A third GSM license has been announced, but has been delayed.

it, we have now been given a clear decision by Ericsson head office to take responsibility for the region as a whole," says Christer Hohenthal

"We have set up a shared service unit to provide service throughout the region, even though this doesn't always apply to the operators we work with in South Africa."

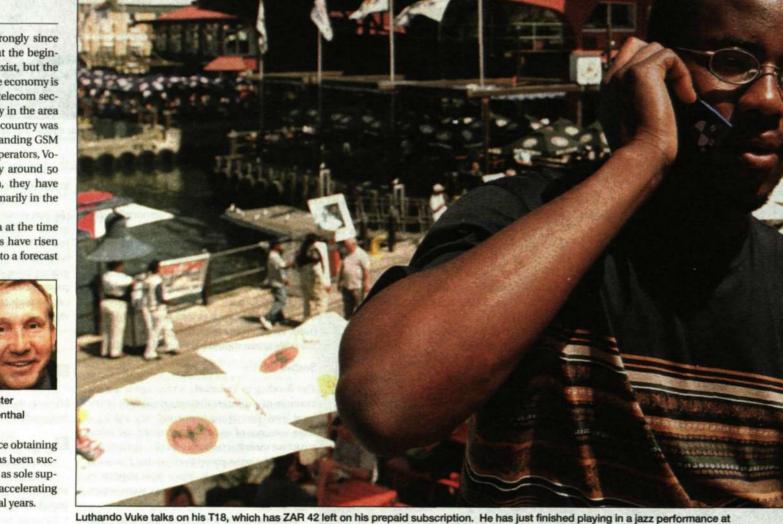


operations.

no exception.

the past two years.

ent story back in 1996.



CONTACT No. 18 2000

#### SPOTLIGHT ON SOUTH AFRICA

CONTACT No. 18 2000

19

# Prepaid sweeps the country

When MTN became the first operator in South Africa to introduce prepaid subscriptions four years ago, it marked the start of incredibly fast growth.

"For a majority of South Africans, there are no alternatives to prepaid subscriptions," says Larry Annets, head of marketing for prepaid at MTN.

MTN's headquarters is situated in the new Sandton business district on the northern outskirts of Johannesburg. The company's 3,000 employees work in intense competition with Vodacom, the other GSM operator in the country. MTN's employees do have the advantage of seeking inspiration from the outstanding collection of African art that adorns the walls of the main office. The operator has three buyers who travel around the continent, building up a unique art collection.

The key to the massive growth in South Africa is prepaid subscriptions. Contact's reporter met Larry Annets, one of the brains behind the highly successful strategy that is bringing mobile telephone access to more and more Africans.

"Not many people expected prepaid subscriptions to be so popular," says Larry Annets, as he tells the story.

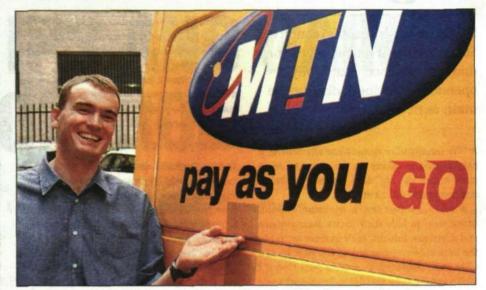
#### Monthly service fee

During the first years of its operation, MTN charged not only the cost of the call but also a monthly service fee. It was only when that service fee and the sign-up fee disappeared that prepaid subscriptions really took off.

At the same time, expansion of the retail network, alternative methods for recharging cards and new product packages with varying call fees have been introduced in rapid succession

Similar developments have occurred at Vodacom, which has a somewhat larger base of prepaid subscribers. Vodacom is a strong operator, whose owners include the state-owned Telkom and the UK's Vodafone, the world's largest mobile operator.

A majority of Vodacom's and MTN's customers choose prepaid subscriptions. In other African nations, some operators sell only prepaid subscriptions. Prepaid subscriptions are popular in many parts of the world, but what is



"Pay As You Go" is MTN's slogan for the prepaid market. The entire concept has been re-launched once and exported to several countries in Africa. Larry Annets, the marketing manager, is entitled to look satisfied - the customers are signing up at an amazing rate.

#### FACTS/PREPAID IN SOUTH AFRICA

Introduced November 1996.

 Accelerated rapidly in 1998, when [mobile] usage multiplied.

- · At March 31, 2000, 70 percent of MTN's customers had prepaid subscriptions.
- · MTN estimates that 77 percent will have pre paid subscriptions by March 2001.

Annets believes there are a number of factors involved.

"South Africa is an economy based on cash and a large portion of the population has weak or non-existent banking relationships. Many would not be approved for credit under the terms of an ordinary subscription."

Even so, prepaid subscriptions are used for outgoing calls to a much greater extent than one would think

"We're surprised about its widespread use. Many prepaid customers would save a lot of money if they had a more binding contract. However, even if that opportunity were available to many of them, they would prefer to retain the flexibility of a prepaid subscription."

This is not unexpected in areas of widespread poverty, which is where many prepaid subscribers live. Base stations in areas such as Soweto or other especially poor areas, such as Alexandra (Johannesburg) or Kayelitsha (Cape Town), have significantly higher usage than the average, in relative terms.

The rivalry between operators has led to the creation of numerous innovative products. A new type of product that Larry Annets is working on right now, and which is expected to it that makes them so popular in Africa? Larry launch at the beginning of next year, is a sub-

with expanded credit opportunities. "We want to give those people who call frequently, the opportunity to continue calling

scription that provides prepaid customers

up to a certain credit limit. Customers then have 30 days to pay. That means that both prepaid and postpaid services are available through the same subscription."

#### Credit more expensive

Every customer receives a balance statement which list balances or amounts outstanding. In order to encourage prepayment, calling costs are affected. In other words, it is more expensive to call on credit.

"We believe that this will attract already established prepaid customers, and that it will stimulate the desire to call," says Larry Annets, who also says that it will take time before subscribers learn to use this kind of account."

"Although it is necessary to understand the rational behind having this kind of balance account, it should not be that difficult in South Africa, where the vast majority of the population are familiar with credit. South Africans like credit.'

Mats Lundström

## SMS via Internet a prime marketing tool

MTN was one of the first operators to offer the transmission of free SMS messages over the Internet. The Web service is still one of the most popular in the world and serves as a marketing tool.

"Thanks to this, MTN has become known throughout the world," says Eugene Pretorius, who is responsible for the South African operator's SMS

throughout the GSM world, and South Africa is

Photo: Torbjörn Selander

Between 70 and 78 million SMS messages are sent every month just through MTN alone, and that usage has increased significantly over

Offering SMS messaging as a Web service is nothing unusual today, when all kinds of Web portals provide that service. But it was a differ-

"We were among the first in the world to of-

SMS is a growing communications format fer such a service, and it has been a success right from the start," says Eugene Pretorius. MTN does not earn any money from the

Web service, rather it views the service exclusively as a marketing tool. That has caused some problems, such as illegal mass mailings, otherwise known as Spam.

There have also been a number of complaints from operators that convey numerous SMS messages. Nonetheless, the service has undoubtedly strengthened the MTN brand name even outside of South Africa.

MTN's Web service has continued to increase. using fleet management by SMS. and currently averages around 600,000 mesmobile phone penetration rates, such as Australia and Europe, with countries like Turkey, the UK, Germany, Italy and Sweden leading the way.

MTN also uses SMS as the carrier for a number of applications and services, both for end users and for companies in various sectors.

Third-party suppliers almost always supply the applications, since MTN has been forced to concentrate on its core operation of conveying calls, due to the enormous amount of growth.

"There are numerous exciting services. Among others, the South African water board controls its reservoirs, water towers and pumping stations using SMS. Railway freight companies use SMS to control signals and

Eugene Pretorius explains that the usage of trucking companies administer their vehicles

"We offer our subscribers a number of subsages a day. Most users, both senders and re-scription services via SMS including stock cipients, are located in GSM regions with high quotes, horoscopes, daily jokes, sports and weather," Eugene Pretorius continues.

> Many operators around the world are also looking into the option of charging recipients for subscription services.

Eugene Pretorius says that even MTN is considering such solutions, but that the problem is finding efficient payment solutions.

"We believe in charging services in which many messages have to be sent over a short period of time, such as the results of national cricket matches. The attempts that we have made, however, demonstrate that it is difficult from a technical standpoint, both in terms of the hardware and software, but there are also capacity issues within the GSM networks."

# Signals transmitted by trees

South Africa is a beautiful country. So beautiful that mobile telephone masts give offence. That is why operators are trying to disguise the masts as trees.

"We usually offer camouflage alternatives if neighboring residents do not want to see a mast in the vicinity," says Andrew Portkallis, environmental officer at MTN.

Since I know that mobile operators in South Africa tend to hide their masts, base stations and antennas, I do not have to drive too far in the Johannesburg area to catch a glimpse of a GSM mast disguised as a stone pine tree. If I look carefully, I can also detect brick-patterned antennas that have been mounted on building walls.

#### **Quick installations**

Since 1994, mobile operators Vodacom and MTN have constructed nearly 8,000 masts and base stations in South Africa. With more than 1,000 new structures each year, this means that the localization, installation and start-up of base stations must be carried out extremely quickly.

"Each new site must be announced in advance and what happens if the local residents object to a mast in their neighborhood?" asks Andrew Portkallis, who works at the MTN head office in Sandton, northern Johannesburg.

Vodacom was the first operator to encounter this type of problem, but MTN encountered similar difficulties in 1999. In order not to delay the expansion of the mobile network, MTN asked an engineering company south of Johannesburg if it could disguise the mast as a tree.

"But it wasn't just the appearance of the masts that annoyed its neighbors. They also reacted to the impact made on the surroundings by the people installing the base stations."

#### More expensive

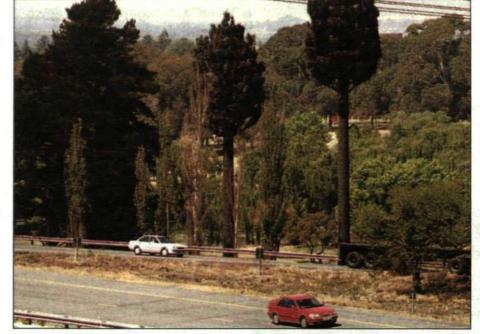
Andrew Portkallis describes how this became the start of an MTN project to improve the environmental work conducted by the operator. Among other ideas, an internal forum was created that jointly with the responsible government authority produced an environmental policy covering the expansion of mobile networks.

"The policy covers every conceivable aspect in the deployment of base stations, of which environmental and esthetical considerations are just a part," he says.

The camouflaging of masts and base stations significantly increases their cost, however, and this explains why there are not a significant number of disguised masts and that most of them are found in Johannesburg, Cape Town or Durban.

"The actual tree costs around ZAR 200,000, or about SEK 250,000, depending on its height. This is a substantial extra expense when you consider that a base station and mast cost anything from ZAR 800,000 (about SEK 1 M) upwards," says Portkallis.

The artificial trees are assembled at Dorbyl Structural Products in Vereeniging. The stem of the tree consists of a strong metal tube and the branches are then hung on the stem. When Contact visited the plant, marketing manager



Behind one of these trees there is a mast and a base station, but which tree? In South Africa, some 100 of the country's approximately 8,000 GSM masts are camouflaged.

Warrick du Preez explained that his company had sold about one hundred trees. He also noted that the trees could be adapted to fit in with the natural surroundings in various parts of the world.

#### Creative camouflage

Naturally, it doesn't have to be a pine tree. We can produce other kinds of tree, but we not only camouflage masts, we also disguise the base stations as small cabins that blend in with the Foto: Torbjörn Selander.

surroundings," he says as we walk through the workshop.

But what if the equipment has to be located in an area without trees? No problem, that's when Dorbyl would try to hide the antennas using more or less natural camouflage.

"On open land, for example, we could try to hide the mast with a water tower structure," states du Preez.

Mats Lundström

## Taking social responsibility

South Africa's complicated history means that international companies operating there view social responsibility in a different light.

➤ "Ericsson naturally supports the government's program for the country's reconstruction," says Sipho Sithole, Human Resources Director at Ericsson in South Africa.

Corporate presentations for companies active in South Africa, both domestic and international, invariably contain a section about what the company is doing to help move the country in a more egalitarian direction.

That attitude varies, however, from industry to industry and is also dependent on where the operations are in the country.

#### Numerous examples

During Contact's visit to Johannesburg, numerous examples of how that societal responsibility expresses itself were given.

These are important efforts in a country with major shortcomings when it comes to basic needs such as education and health care.

Ericsson in South Africa prides itself in actively participating in the transformation process, even if it will be a long journey, according to Christer Hohenthal, the local company's managing director, who explains the paths that this social work can take.

"One way is to build schools in order to provide more South Africans with an opportunity for education. We have sponsored several schools around the country that will be inaugurated this autumn," says Christer Hohenthal.

Another unique phenomenon are BEE (Black Economic Empowerment) companies, which are companies that are developed and operated by black people within the framework of the government's reconstruction and development program.

"The existence of BEE companies is due to the fact that during the time of apartheid, blacks were largely prevented from operating companies, hence they could not participate in the mainstream economy of the country. This is an attempt to restore the opportunity to compete on equal terms," says Sipho Sithole.

#### More subcontractors

"It is an attempt to provide designated groups such as blacks, coloreds, Indians and women the opportunity to participate in society. For Ericsson, it means that when we solicit bids we can do so from BEE companies," says Sipho Sithole.

Ericsson works actively to identify BEE companies among its subcontractors, providing them with training, and equipping them with the necessary tools in order to accept assignments.

One example is the organizational changes that are occurring at Ericsson's local company in South Africa, which has received expanded responsibility for the entire region. An increasing number of tasks that were once considered part of core operations are being outsourced to subcontractors, providing an opportunity for BEE companies.

"It is a requirement in South Africa, not by law, but rather a mandate to train many individuals so that they can find opportunities," says Gary Dewing, Director for operations.

"We also have an internal policy to contract BEE Gary Dewing companies. Of the 20 to 30

companies that we have used, approximately 80 percent are BEE companies."

In recent years, Ericsson has trained over

300 people as subcontractors. It is not, however, simply an unwritten rule, it is also a matter of efficiency.

"It has been Ericsson's policy to train people with the condition that when we don't have work for them, they are free to seek work where there is a demand for their training, even if that means working for competitors."

"In that way, we save money while simultaneously doing something for society as a whole," says Gary Dewing.

Starting September 1, however, the UK company EXI assumed responsibility for operations that are contracted out to subcontractors. EXI plans on maintaining the same policies as Ericsson.

#### Aiming to be better

There is also an ongoing effort within Ericsson to hire more employees from the designated groups.

"We have already achieved a situation that, in many respects, reflects South Africa's demographics. The levels that we have attained, are what many companies hope to be able to achieve within five to ten years," says Christer Hohenthal.

"But, of course, we would like to Johanne do even better, not in terms of quantity but rather quality, such as in upper-level positions. This company is attempting to become a colorblind company, where nobody need dwell on racial origins. That has to be part of one's policy

origins. That has to be part of one's policy to get people to consider Ericsson in South Africa as a South African company," says Crister Hohenthal.

"Ours is an operation that needs to find a



Sipho Sithole is head of Human Resources at Ericsson in Johannesburg. He is also a "praise singer," which is a special South African function. A praise singer is a kind of traditional poet, who conveys his message on special occasions in interaction with his audience.

good fit with South Africa for the sake of the country. Furthermore, South Africa is an outstanding place for recruiting talented individuals to Ericsson in general."

# FIRST 3.5GHz LNA WITH ADJUSTABLE IP3 AND GAIN STEP CONTROL

The MAX2645 SiGe LNA has the features you need to build the most robust, high dynamic range receiver for Wireless Local Loop and Wireless Broadband

14.9

MAX2645

MAX2683/84

MIXER

LO BUFFER

LO BUFFEF

MAX2683/84

MIXER

GAIN'

(dB)

11.5

SMD

SGA-1163

Tx IF

10.6

AGILENT

MGA-72543

ADJUSTABLE INPUT

IP3 UP TO +12dBm

Regias

는

1st LNA

REOUT

O-HMAT-E

2nd

LNA

MAX2645

×

Continuation planting of web. F 1 Britishoft, June na a District told that F

ing the second one

They be about the property of the property

by so acresse how a most have per a fragmentic react of the second second of

She wentered the sta

instal in theme

and the second s

## \*f = 3.55GHz, I<sub>CC</sub> ≈ 10mA, V<sub>CC</sub> ≈ 3V



Access applications.

SHUTDOWN

GAIN STEP

REIN

MAX2645

3.4GHz TO 3.8GHz

Vcc

BIAS

GND

DUPLEXER

LOGIC-CONTROLLED

SHUTDOWN (ICC =  $0.1\mu A$ )

LOGIC-CONTROLLED GAIN STEP OF 24dB



#### FREE Wireless Design Guide—Sent Within 24 Hours! Includes: Reply Cards for Free Samples and Data Sheets

PA

PREDRIVER

Call For a Design Guide or Free Sample U.K. (44) 118 9303388, Sweden (46) 84445430 Toll-Free in the U.S. 1-800-998-8800





2000 EDITION!

**FREE FULL-LINE DATA CATALOG** 

**ON CD-ROM** 



#### Distributed by Maxim Distribution, Arrow, Avnet Electronics Marketing, CAM RPC, Digi-Key, Elmo, Nu Horizons, and Zeus. Distributed in Canada by Arrow, and Avnet Electronics Marketing.

Austria, Maxim GmbH (Deutschland); Belgium, Master Chips; Czech Republic, Spezial-Electronic KG: Denmark, Arrow Denmark A/S; Finland, ACTE NC Finland Oy; France, Maxim France, Distributors: Maxim Distribution, Dimacel Composants; Germany, Maxim GmbH, Distributors: Maxim Distribution, SE Spezial-Electronic GmbH; Ireland, FMG Electronics; Italy, Maxim Italy, Distributor: Esco Italiana S.p.A; Netherlands, Getronics Telecom Solutions B.V.; Norway, ACTE Norway AS; Poland, SE Spezial Electronic Spolka Z.O.O.; Portugal, Avnet-ADM Electronics, S.A.; Russia, SE Spezial-Electronic ZAO; Spain, Maxim Distribución, Avnet-ADM Electronics, S.A.; Sweden, Maxim Sweden, Egevo Elektronik AB; Switzerland, Maxim Integrated Products (U.K.), Ltd., Distributors: Maxim Distribution (U.K.), Ltd., 2001 Electronic Components, Eurodis HB Electronics; Ukraine, Spezial-Electronic KG.

MAXIM is a registered trademark of Maxim Integrated Products. © 2000 Maxim Integrated Products.

MAX2645 PROVIDES HIGHER GAIN THAN

THE COMPETITION!

ADJUSTABLE BIAS/IP3 MAKES MAX2645 VERSATILE! USE IT AS 1<sup>ST</sup> AND 2<sup>ND</sup> STAGE

LNA, PA PREDRIVER, AND

LO BUFFER.



Export controls are supposed to prevent certain products from ending up in countries that could use them for military aims.

Photo: Pressens Bild

# Export controls – complicated but essential

As Ericsson manufactures more high-tech products, it has become increasingly important for the company to maintain control over where its products, as well as knowledge about them, are ending up.

"We simply can't afford to make any mistakes in this regard. That could damage the company enormously," says Tina Voosemaa, Corporate Export Control Coordinator at Ericsson.

➤ While one might think that the issue of export controls became irrelevant with the end of the Cold War, they in fact remain a highly relevant topic. Today, Ericsson manufactures many so-called dual-use products, such as high-tech products that are designed for civilian use but which could also be used for military applications. The rapid transfer of information that occurs over the Internet today makes it increasingly difficult to control outflow from the company.

22 FEATURE

Export controls mean that dual-use products cannot be exported to certain end users or certain countries without permission. Export controls oversee every part of a dual-use product, not simply those parts that Ericsson has manufactured itself. Components that have been purchased are also included, as is technical data pertaining to those products.

The primary goal behind export controls is to prevent dual-use products, or knowledge of how they are manufactured, from ending up in the hands of parties that might misuse them. Such products could, for example, conceivably be used by terrorists or countries to expand their military power or to construct chemical, biological or nuclear weapons.

#### Need to increase awareness

"It's important that we increase awareness throughout the organization when it comes to the importance of export controls. If everyone back of their minds, then we can increase Ericsson's effectiveness as a whole," says Tina Voosemaa. Since this is an area

keeps these issues in the

that is controlled by numerous laws and regulations, export permits can frequently take a long time

to obtain. According to Tina Voosemaa, if every link within the chain of production is aware of the rules that apply, then procedures can be simplified.

"This is everybody's responsibility! It's difficult for us to fix at the end what should have been dealt with right from the start. Export controls need to be taken into consideration already during the product design process."

In order to increase awareness about how important export controls are, Ericsson now holds an annual seminar to discuss these issues. The most recent seminar was held on October 25 in Stockholm, attended by export control representatives from Ericsson's European companies.

#### Many laws to follow

Since Ericsson is a multinational company with operations throughout the world, laws from many different countries have to be followed. Most important are the export control laws of all the EU and the US, since that is where most high-tech products are manufactured. Export controls pertain not only to countries but also to individuals and companies. The US maintains an official blacklist, while the EU's list is secret. Still, in both cases, it is necessary to submit an application in order to find out whether you receive a yes or no

"Every division within Ericsson has its own export control organization and our policy is to follow export control regulations very rigorously. This is important since we risk being blacklisted ourselves if we don't behave – an action that would make it difficult for us to buy essential components," says Tina Voosemaa.

#### Sara Morge sara.morge@ime.ericsson.se

More information about export controls can be found at

http://inside.ericsson.se/exportcontrol

## Membership guarantees delivery

Mobile Systems is well aware of the fact that export controls can be a real problem when people are unfamiliar with the rules that apply. If all the permits are not in order, deliveries can be delayed by up to six weeks, inconveniencing both Ericsson and its customers.

Our salespeople and marketing representatives could definitely be more aware of these issues. This is enormously important for the delivery of GSM equipment in general, and of radio base stations in particular. If we export anything at all without permission, the case goes directly to the public prosecutor for customs offenses," says Brittmarie Berge, export control coordinator at Mobile Systems. The penalty for violating the strategic products law includes imprisonment for up to two years for company management.

In the mobile segment, many business transactions are occurring at a faster pace than ever. Sometimes deliveries are made even before a contract has been signed. What is often forgotten is that recipients of GSM equipment are required to be members of the GSM Association. Swedish authorities also require membership. Another important detail that sellers often overlook is that the operator must have an end-user certificate.

"One piece of advice that I would like to give is to inform new operators at the start of negotiations that they have to be a member of the GSM Association. An end-user certificate can be prepared, even if negotiations don't lead to a conclusion," says Brittmarie Berge.

#### CONTACT No. 18 2000

#### FEATURE

# User-friendliness increasingly important

Usefulness and user-friendliness. Those are hallmarks of a good website. Communication and Context, an Ericsson specialized in analyses and

planning of web-based information, recently conducted a user test of Find, Ericsson's internal search engine.

Testers felt that Find works well, but that money could be made by making the search engine even better.

"People are a terrible judge of a website they've created themselves," says Magnus Jonsson who, together with Elisabeth Franzén, oversees Communication and Context. The group consists primarily of information architects who structure information on websites, as well as Web communicators, who assist clients in getting their messages out.

An important part of their work is to investigate how easily users absorb information presented to them at a website. The goal is, of course, for users to understand the information and find what they are looking for, but money can also be made by making the searches faster.

Some 5,000 people conduct searches on Find every day. If every search were shortened by 30 seconds, Ericsson would save over 8,000 work hours per year. Translated into money, that would result in a savings of SEK 1,750,000.

#### Select few tested

Bodil Wennerlund is an information architect and one of the people who conducted the study of Find.

She explains that the people who were selected for the test had varying degrees of experience. They were studied both in everyday work situations, so-called field tests, as well as in more thorough lab tests. During the lab tests, the test subjects' reactions, such as facial expressions and body language, as well as

#### FACTS/COMMUNICATION AND CONTEXT

Communication and Context is a department within DIA, the Internet Applications and Solutions division.

More information can be found at:

http://dia.ericsson.se/
 http://internetsolutions.ericsson.se/

With 19 employees, its focus is on the Web and on Internet users in the following areas:

- Preliminary studies analyses of Web projects including goals and purpose.
- Communications strategies how to integrate the Web into the rest of your communication.
- Informational structures enabling users to easily orient themselves on the website.
- Search services how to make websites searchable and ensure that the site is found.

The number one supplier

of ATM25 PHYs

what is on the screen, were recorded. Five people were involved in the field study and six people were tested in the lab. Everyone was given the same tasks to solve.

These tests were supplemented by qualitative interviews and telephone interviews with users around the world.

Test subjects encountered roughly the same problems.

"Regardless of whether it was an experienced or an inexperienced user, similar behavior could be detected," says Elisabeth Franzén.

So, what kind of comments could be made about Find? Communication and Context identified ten problem areas. Most test subjects felt that Find returned too many hits. Moreover, search results were not always presented in an understandable manner for users, and help functions were difficult to find.

#### Advanced searching suggested

A summary of suggestions was also made for how to solve problems.

Simple preset settings can be used to limit searches. There should also be a page for advanced searches. Help functions should be improved, and it was suggested that it be possible to modify the search and results pages according to one's own preferences.

Bodil Wennerlund emphasizes that users are nonetheless very satisfied with how Find operates. Some view the page as indispensable.

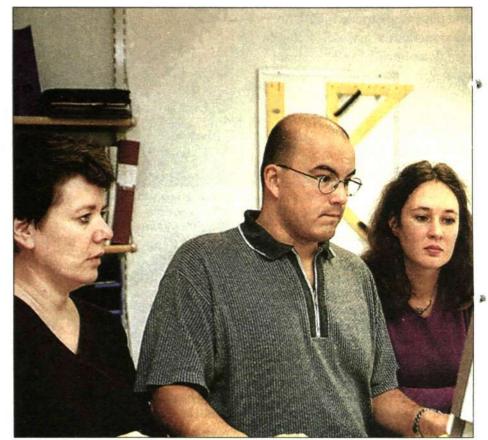
Ove Gustafsson, skills manager at Internet Solutions, is responsible for Find. He was the one who decided to conduct a user's test, and he has received the compiled results.

He believes that people from different parts of the globe experience Web pages in different ways. Now, with the market in Asia growing, that can be a good thing to remember. There will be ample reason to conduct new tests in the future.

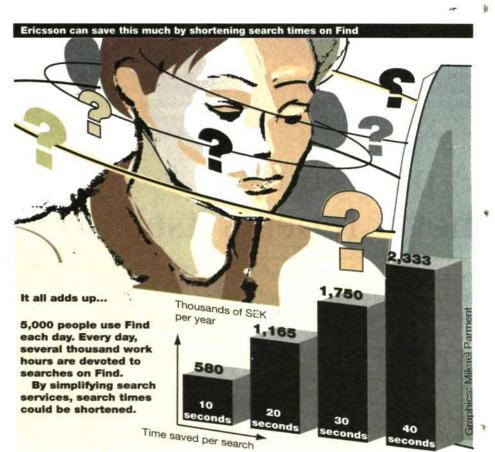
"We have reviewed the proposals. We hope to start implementing certain changes in November."

Magnus Jonsson believes that it will become even more important to have user tests for all types of applications in the future. With the mobile Internet, users will be able to stand and receive information in the middle of this commotion. That will increase demands for speed and simplicity.

> Jesper Mott jesper.mott@ime.ericsson.se



Bodil Wennerlund, Magnus Jonsson and Elisabeth Franzén are studying how people experience websites. Their jobs are a combination of technology and psychology. Photo: Jesper Mott



Powering What's Next

•

24 TECHNOLOGY CHATPEN

CONTACT No. 18 2000

# Chatpen – revenge for pen and paper

Age-old writing tools such as pen and paper are experiencing a renaissance in the age of IT technology. Ericsson will be presenting an entirely new system for sending graphical SMS messages at the Comdex trade show in Las Vegas. With the help of a special pen and paper, handwritten text and drawings can be sent as messages to mobile phones.

44

The device, known as Chatpen, looks like a slightly chubby fountain pen. It writes using an ordinary ballpoint, but also contains a camera, a processor and a Bluetooth transceiver that can wirelessly communicate with a mobile phone equipped with Bluetooth and GPRS. The pen can be used to write messages on a special notepad called Chatnote, which is reminiscent of a Post-it notepad.

Chatnote paper has a special dot pattern printed on it. The camera detects these dots, which enables it to register the movements of the pen, converting them to SMS graphics.

A piece of Chatnote paper also contains a box where you can write in the phone number of the intended recipient. When an X is inserted in the send box in the lower corner, the message is automatically sent on its way.

The system was developed together with Anoto, a subsidiary of C Technologies, headquartered in Lund, Sweden. Ericsson has an ownership stake in both companies.

#### Pattern is programmed

Anoto is the company that developed and owns the rights to the dot pattern. The unique thing about this pattern is its irregularity. If you look closely, you can see that the pattern differs slightly from one area to another.



Using a Chatpen on special paper eliminates the need to input text by way of a phone keypad or computer keyboard. Both e-mails and faxes can be sent directly from a sheet of note paper that has been printed with Anoto's dot pattern. Photo: Lars Åström

This irregularity allows the pattern to be "programmed" with different functions on different parts of the page. This is how it can distinguish between a message that has been written on a Chatnote page and numbers inside the box, which are interpreted as a phone number.

"The Chatpen is appropriate for everyone who would like to communicate with pen and paper over a distance. Once the system gains wider acceptance, people will be able to use it for almost anything," says Magnus Hollström, development manager at Ericsson.

Anoto's dot pattern can be printed on most

kinds of paper and can be provided with numerous different functions. It is predicted that e-commerce could become a major application area.

#### Imagination only limit

The pattern could, for example, be printed as a background to order forms in a newspaper or mail order catalogue. Once a coupon was filled in, the order would immediately be sent on its way. Imagination is the only limit to the possibilities available.

If the dot pattern were printed in the background of the stock listings in the newspaper, you could receive updated share prices in the form of SMS messages, simply by circling the name of a stock.

"Our goal was to develop a system where paper and pen become the new interface to the Internet," says Magnus Hollström.

Chatpen and Chatnote will be presented at Comdex, a major IT trade show being held in Las Vegas in the middle of November. Commercial testing of these products is scheduled for the second half of 2001.

> Lars-Magnus Kihlström lars-magnus.kihlstrom@lme.ericsson.se

## A pattern that never repeats itself

Anoto's dot pattern is so big that it would cover 73 billion A4 sheets of paper – an area half the size of the United States. Amazingly, the pattern never repeats itself. That is the secret behind how the pen can orient itself on a piece of paper.

The pattern is similar to a very fine dot matrix and works like a coded system of coordinates. The dots are positioned in a grid system, with 0.3 mm of space between them, offset in relation to intersecting points on the grid pattern. Dots are offset in one of four ways – up, down, right or left – providing the equivalent of two bits of information.

The pen's camera eye requires at least 6 x 6 dots, or 72 bits of information, in order to orient 'itself, which is enough to provide the pen with precise coordinates. It knows exactly where it is on the sheet of paper, or which page it is on.

"Two of our systems engineers, Ola Hugosson and Petter Ericsson, came up with the concept. Actually, the solution is not that complicated. While it's obviously an intricate piece of engineering, the best solutions are often the most simple," says Linus Wiebe, who oversees the development program to find new applications for Anoto.

Anoto owns the rights to the pattern and Ericsson has a license to a portion of the pattern for use with the new Chatnote pad, among other applications.

A partnership has been established with calendar companies Time Manager and Time System, to have them print Anoto's pattern on the pages of their calendars. This would enable the synchronization of MS Outlook or Lotus Notes on a computer directly from an ordinary desk calendar.

At the Comdex trade show, Anoto will also be introducing other collaborative partners.

"We're aiming to make our system the global standard," says Anoto Board member Christer

Lars-Magnus Kihlström

Johansson.

۲

# Coordinating Ericsson's usability engineering

Is the product easy to master? Can you remember how it works? Is it fun to use? Does it look good?

These criteria for user-friendliness, along with much more, will be discussed at the Ericsson Usability Conference being held in Ireland at the beginning of December.

➤ For the third year in a row, Ericsson is organizing a Usability Conference that will deal with how to go about designing products and systems in an easy and user-friendly manner.

A key concept is to design products based on the abilities and work situations of users. The questions listed above are indicators of good design. If you cannot answer yes to all of them, the product is probably not especially user-friendly.

The aim is that anyone who is interested in and works with the interplay between humans, computers and interactive systems, can learn something about these questions at the conference. This includes, for example, system analysts, designers and those who are involved in creating user interfaces.

Increasingly, it has become a priority to make products and systems that are userfriendly.

Good design offers numerous benefits, resulting in more positive customers, repeat business, better marketing, increased productivity and lower support costs. Well-designed systems also make it easier for users to accomplish their goals.

The conference aims at coordinating Ericsson's activities in the field and presenting a unified appearance to customers.

#### Lars Cederquist lars.cederquist@lme.ericsson.se

More information about the conference, which will be held December 6–8, can be found at:

http://nosc.eei.ericsson.se/usability/ Conference/index.shtml

#### TECHNOLOGY FANS

# Twice the life span for fans

Ericsson has already installed millions of fans in radio base stations out in the field. Next year, two million more will be delivered. Fans are crucial to ensuring that base stations operate as they are designed to. That is why Ericsson, together with a German supplier, has developed fans that are projected to have twice the life span of current versions.

➤ "Fans are both a vital part of our radio base stations and also a necessary evil," says Per Engblom, who is in charge of mechanics at Enclosure Systems, which has overseen the project to develop new models. "Components, especially power amplifiers, produce enormous amounts of heat that must be dissipated. You also have to remember that these are industrial products that have to operate around the clock for many years, not PCs that are on for eight hours a day and which are then scrapped or given away after just a few years."

The project began five years ago after problems were experienced in Thailand, where a number of ball bearings in fans were not reaching their requisite life spans.

#### Twice as good

Two German fan manufacturers (ebm and PAPST), a Swedish subsidiary (Ziehl-ebm AB), its suppliers of ball bearings (GRW) and lubricating grease (Klüber), along with two Ericsson units (Enclosure Systems and ERA's Cooling Competence Center), have succeeded in developing fan models with twice the anticipated life expectancy, corresponding to 16 years rather than the previous eight-year life span.

Improvements have been made in the de-

sign of the motor and electronics as well as the ball bearings and lubricating grease, which could be considered the critical component when it comes to life span. When the grease is no longer able to lubricate the ball bearings, they wear down, binding up the fan and drawing more current, forcing vital components to work harder and dissipate even more heat.

#### Procedure benefits everyone

Once this occurs, the fan has to be replaced and each replacement can cost between USD 300 and 500. That is an expenditure that operators would prefer to avoid.

"The ideal would be to improve components so that they generate less heat and operate more efficiently," says Per Engblom. "We would then avoid a large number of problems associated with cooling them."

An indoor macrostation should normally be able to withstand temperatures between -5 and +45 degrees Celsius. Thus far, the project has focused on these stations in particular (microstations are able to operate without fans), but the next stage will focus on outdoor stations.

Outdoor stations pose other problems, such as protecting the fans against salt and damp and various air pollutants.



This is what it's all about – fans that cool radio base stations. Examining a fan unit for the American radio base station 884 are Erich Kemmer, ebm; Hui Zhao and Björn Gudmundsson, Ericsson Cooling Competence Center; Arno Karwath, PAPST; Walter Vogel, GRW; and Helmuth Miller of Klüber. Photo: Kurt Johansson

The way the project has operated – with both suppliers and subcontractors involved from the start – has benefited everyone. Ericsson has increased its technical expertise within this area and suppliers have gained a good insight into how their products are to be used, along with an enormous database for testing technology based on feedback from actual use.

"This has been a wonderful way of working, to be able to see the whole context and be involved in testing," says de Reimund Engelberger, development engineer at PAPST. He maintains that the demanding life expectancy requirements have now resulted in a big technical lead over their competitors. They also emphasize that while their products may be marginally more expensive, they are still cheaper for customers overall, since they will last much longer.

Lars Cederquist

## **APIS Training & Seminars presents**

# **IP-Based UMTS Networks**

11 – 12 December 2000, Scandic Hotel Slussen, Stockholm, Sweden

In the near future All-IP Mobile Networks will converge data, voice and multimedia onto a common platform. This technical seminar is especially designed for those of you who take part in the evolution towards the converged All-IP future systems and the Wireless Internet!

Take part of the latest findings on:

- The UMTS IP Architecture
- Services and Applications
- Network Security
- Network Management
- IPv6 migration strategies

Developed in co-operation with Ericsson, Intel Wireless Competence Center, Nokia Research Center, Nortel Networks, Northstream, Siemens, Orange Sverige/Bredbandbolaget, SmartTrust and Telia Research.

## www.apis.se

**APIS Training & Seminars** 

For more information and registration please visit: www.apis.se or call +46-8-555 105 00

75

MEMBER

25

# Analog

first half of 2000, TI shipped one million ADSL modem ports, growing our share of the DSL market faster than any of our competitors. How did we do it? By offering a e end-to-end DSL solution, including analog, DSP and software. If you're looking for stand-alone analog components for customer premise equip also the best source. An example of our analog expertise is the TLFD600, a highly integrated analog front or CPE that saves board line driver and receiver on one chip. For CO, TI has just released the industry's while driving full-rate ADSL DMT signals. Also, our BiCOM-II process technology will enable 20X greater integration of control functions that interface the digital and analog signal paths. To find out more about TI's complete analog portfolio for DSL, call or visit us on the Web, where you'll find our new Analog DSL product ulletin, evaluation modules for line drivers/receivers and all the technical documentation you'll need to move your designs forward in Internet time

Device **Customer Premis** TLFD600 TLFD500 TLV320AD11A Central Office TLV320AD16 TLV320AD12A +12 V is for on-chip line driver.

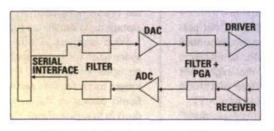
The red/black banner is a trademark of Texas Instruments. 1621-09WW MSDS10204E © 2000 TI

THE WORLD LEADER IN

# LUG INTO THE POWER OF DSL WITH TI'S WORLD-LEADING ANALOG.

## TI's analog portfolio for DSL delivers new levels of integration and performance.

A COLUMN TO A COLUMN	Description	ADC/DAC Resolution (bits)	Interface (Data/Control)	Supply Voltage (V)
ALC: NOT	Full-rate/G.lite codec + line driver/receiver	14/14	Serial/Serial	+3.3 (+12)*
1	G.lite codec <sup>†</sup>	14/14	Serial/Serial	+3.3
	Full-rate codec + echo channel <sup>†</sup>	14/14	Parallel/Serial	+3.3
ALM DO	Full-rate/G.lite codec + line receiver	14/14	Parallel/Serial	+3.3
	Full-rate codec <sup>†</sup>	14/14	Parallel/Serial	+3.3



TLFD600. Analog front end combining codec and line driver/receiver on one chip

† TI has a full line of line drivers/receivers to complement these devices.

Call us at +44 - 1604 - 66 33 99 (Europe), 1-800-477-8924 (North America), +886 - 2 - 23786800 (Asia). www.ti.com/sc/analogdsl



.

.

#### 28 AT WORK WORKPLACE

CONTACT No. 18 2000



#### **Economic school** teams with Ericsson

>> What sort of expectations and preconceptions about leadership do we actually hold? This is the focus of a new developmental collaboration that Ericsson has initiated in conjunction with the Center for Advanced Studies of Leadership (CASL) at the Stockholm School of Economics.

"We want to conduct leadership development based on new skills and experiences. In order to do so, we have to be involved in developing information about what goes on inside one's own organization." says Birgitta Landin of Human Resources Sweder

"The company often describes an ideal image of the characteristics that its leaders should have. Many employees, however, do not feel comfortable with that description," she explains.

"How are opinions on leadership affected when we paint an idyllic image that does not exist? What does everyday leadership really look like? These are a couple of the things we would like to find out."

This research collaboration will be based partly on a survey that will be distributed among participants in Ericsson's Senior Leadership program.



#### **Chocolate good for** the heart

>> Working the night shift can increase your risk of cardiac disease, while eating chocolate can counteract such ailments. These are the results of two separate studies presented recently in the US.

By measuring heart activity over 24hour periods, researchers found that nerve activity within the heart follows a consistent, 24-hour pattern, regardless of when a person sleeps

This means that the heart is not prepared for the stress that it encounters when working a night shift. Results were underscored by the fact that night shift workers suffer a higher rate of cardiac problems, according to news agency TT.

Night-shift workers can console themselves, however, by eating a little chocolate. According to a research debate arranged by the American dietician's council, chocolate can actually have a positive effect on the heart.

#### Workplace health a growing problem

>> The health of European workers is on the decline according to a study based on 21,500 EU citizens, conducted by the Dublin Institute.

"When we started the project ten years ago, we thought that work-related illnesses was a thing of the past," said Pascal Paoli, one of the lead researchers at the Institute, to TCO.

"However, in new workplaces we are not only dealing with old problems, but also with new health concerns such as stressrelated illnesses and burnout."



nikaela

# The desk – a personal

More and more of us are working in open office settings. What happens to our need for personal space when we share a room with others? We seem to be finding new ways of injecting our own personalities into the workplace environment.

> At various locations throughout Ericsson, new office environments are being developed that incorporate different work styles. In order to create environments that pro-

mote the exchange of ideas, modern design has been used to form airy office landscapes that include informal meeting areas. Individual offices have been replaced by desk and storage units situated in common areas.

What happens to our need for personal space when we move out of our own office into an open environment? Either there is no longer room for that cactus collection, those family photos or the team trophies, or they don't fit in very well with the new, designer environment.

#### **Expectations** were exceeded

Göran Wallin, who works in a completely renovated office building south of Stockholm, says that there was an uneasy feeling prior to their move.

"It was somewhat unsettling; I wasn't happy when I first heard the news. I had always had my own office and I didn't think it would be as good sharing space as it ended up being," says Göran Wallin, who has now been Göran Wallin

installed in the new office for just over six months.

"Of course, it's easier to concentrate when you are sitting alone, but at the same time, I receive more information now that I share an office space. So things have exceeded my expectations!"

Göran Wallin's impressions are not unusual. Helena Hambraeus, head of Work@Place at Corporate Real Estate, says that many employees express worry when changes occur or when they have to move.

"Of course an open office landscape should also contain one's own personal space," says Hambraeus. "But that space does not have to be as large as we might think, provided that the remaining surroundings are functional in de-

Having control over a personal area has a lot to do with a desire for security, according to Helena Hambraeus and Birgitta Hiller of Management Consulting at Ericsson Human Resources

"It's important that we're allowed to have our own personal space in the workplace. Even though times have changed, we have not changed that much as human beings," says Birgitta Hiller.

"Having family photos, souvenirs from vacations or children's drawings are all ways of creating a feeling of home. When you see this kind of behavior, you have to assume that it means something," says Birgitta Hiller.

"We spend a large portion of our lives away from our families and I think its good that we're able to bring that closeness of important

## relationships into the office," she adds.

**Digital realm** 

Ways of personalizing workspaces are changing as work patterns are updated. One can talk about a trend towards digitizing the personal realm, just like so much else in our world.

"Our increased mobility means that we're finding new ways of staking out our claims,

even as the importance of the physical desk is diminishing.

"The traditional photo on the bulletin board has been partially replaced by digital photos on computer desktops as well as personalized screensavers. Personal greetings and ring signals on mobile phones are other examples of how we express our personality," says Helena Hambraeus.

#### Personal touch

Moreover, the need for a personal touch on one's desktop is closely linked to our need for security. And security is not merely derived from a cozy physical environment.

"If we can ensure that people feel anchored and recognized within their group, there is less of a need for territorial behavior. That means that leadership and the external work environment actually go hand-in-hand," says Birgitta Hiller.

At the same time, however, we cannot forget that individuals have different needs, and that it is not possible to say that one is more right than the other

"When we see a beautiful, newly-designed office environment, we might find that it feels inappropriate to display our soccer trophies on our desks. But it's alright to have them there," says Birgitta Hiller.

#### Not distracting

Both Birgitta Hiller and Helena Hambraeus dispel the notion that those kinds of decorations in one's workspace are distracting to fellow colleagues.

According to Helena Hambraeus, the most common source of distraction in the workplace is too much noise, especially noise that doesn't have anything to do with one's work.

Following that are reflections on computer monitors. In other words, it is a mistake to forbid personal effects on the grounds that they are distracting.

# refuge



change

ment she was in. together with nine other people.

AT WORK WORKPLACE

## New policy to reduce stress

As workplace tempos continue to increase, there is a risk that we are working too hard and too much. In order to counteract stress, Ericsson adopted a new policy last spring.

> "The policy is a declaration of intent, in which we describe how we want to operate. We want our colleagues to feel good; that is a stated goal of management. If people feel good, then the company feels good and we work more creatively," says Anne Peterberg, company physician and head of Workplace Health.

The policy states, among other objectives, that Ericsson shall be, "a healthy company that offers good opportunities for a balance between work and private life." The policy acknowledges that the high rate of change that prevails in society and within the company, puts employees' health at risk, but reiterates that a good working environment is a "competitive tool and a prerequisite for effective and quality-assured work."

#### What do you do to prevent the policy from becoming a paper tiger?

"We're trying to inform people about the causes of stress and the consequences at all levels within the organization. We discuss this during training of managers, who need to know which tools the company offers within this area," says Anne Peterberg.

#### Are Ericsson employees stressed-out?

"We know that we reflect society in general, and we see a clear increase of stress in society. We're afraid that it will increase even more, and are doing everything we can to prevent it. Some of our environments are under great pressure and we have to take care of our fellow employees," says Anne Peterberg.

Peterberg's unit, Workplace Health, coordinates Ericsson's efforts regarding stress. This work takes place both on an individual and organizational level. Most often it is the company health service that takes care of individuals who suffer from stress, while Management Consulting works on stress issues from an organizational standpoint.

"When department managers or project managers see that their units are not feeling good or that they are on the verge of a tough period, then they can call us. There are no standard answers, but we have methods for finding fruitful solutions," says Charlotte Brolin of Management Consulting.

Charlotte Brolin and her colleagues have tools to document stress. Based on analysis results they, together with the appropriate unit, have developed guidelines for dealing with the situation better. Part of it involves developing the organization and leadership through coaching of individual mangers or through efforts applied to the entire group.

#### Henrika Lavonius-Norén

http://hrsverige.ericsson.se/ arbetshalsa/stress.shtml

A photograph of one's family or souvenirs from a trip. By adding a personal touch to our workplace we're creating both a level of comfort and marking territory. This need remains even when workplaces

Photo: Lars Åström

"If we are not allowed to provide our workspace with a personal touch, we feel violated. As a company, we are striving to hire creative, flexible individuals, and they do not want to be shoved into cages," says Birgitta Hiller, who admits that she would bring along pictures of her children regardless of which work environ-

That is also the case with Göran Wallin, even though he now sits in an open office landscape

"I've got a few small items here. They're ones I've had with me all along," says Göran Wallin.

> Henrika Lavonius-Norén freelance journalist



# One Switcher fits all your needs.

National's LM3477 – Easy to Use High Efficiency High-Side N-Channel Controller for Switching Regulators.

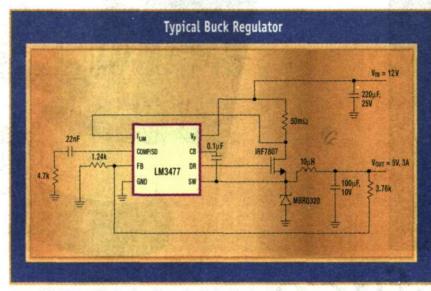
Ideal for Embedded Systems, Portable Instruments, Set-Top-Boxes, Battery Chargers and Offline Power Supplies.

- Versatile Controller for Buck and Buck-Boost Topologies
- Up to 95% Efficiency
- 500 kHz Switching Frequency
- · Current mode operation
- Supply Voltage Range of 3V to 35V
- Internal Push-Pull Driver with 1A Peak Current Capability
- ±1% Internal Reference
- Shutdown

2

- Current Limit and Thermal Shutdown
- Internal Softstart
- 8-lead Mini-SO8 package

For more information: www.national.com or fax us at +49(180)5121215



© 2000 National Semiconductor Corporation. National Semiconductor and & are registered trademarks of National Semiconductor Corporation. All rights reserved.



Please visit us in Munich at the electronica 2000 November 21 – 24, 2000 booth A4.506



#### AROUND ERICSSON

## Make calls, take pictures

> SMS was a huge success. The next mobile phone craze could well be sending photos

Products that make it possible to send images between phones will become a reality as early as next year, through a new cooperative agreement between Ericsson and Canon.

"This is a natural step for us to take and definitely in keeping with the times. We're convinced that this new standard will signify a real boost for consumers," says Lars Sandberg, head of mobile multimedia at Ericsson in Japan.

The project does not involve a single product jointly developed by the companies. Rather, Ericsson and Canon will separately launch consumer products. Ericsson's research has shown that applications that include images will be among the most popular aspects of the next generation of mobile phones.

Digital imaging products and mobile phone inventions are two of the fastest growing segments within the consumer products area. By combining a digital camera with a mobile phone, it will become possible to transmit images together with text messages. Lars Sandberg believes that the convergence of these two categories will create whole new opportunities and products.

"It is possible, for example, to envision taking a photo of something with a camera in your mobile phone and then sending that image to your friend, all within the span of a minute."



"Another possibility is inputting photos together with names in a telephone registry."

> Sara Morge sara.morge@lme.ericsson.



Chao Lan, Supervisor, Ericsson Mobile Shop, Shanghai.

#### Selling and educating

>> As supervisor of one of Ericsson's mobile shops in Shanghai, Chao Lan is in the front lines of the wireless revolution, and her job is a bit different from those of her counterparts in Germany, Japan or the US.

Chao Lan sells phones, but a big part of her job is educating her customers. That's because not only do most people not have a mobile phone, but many people do not have any telephone at all. But that doesn't mean that people aren't interested in the latest technology.

"Most people end up buying a traditional mobile phone because of the cost," she says. "But many people are interested in our new WAP phones, and I think in the next few A years the Internet and mobile revolutions will become a single movement in China, and hundreds of millions of people will get 'unwired.'"

In China there is only one fixed line telephone for every 18 people, and the number of mobiles are nearly half that of fixed phones.

## RF Design, It's Not A Hidden Art Anymore!

Up to now designing RF ASICs has almost been considered more of a black art than a real technological process. Not any more. ST has consolidated all its years of ASIC design experience to bring new levels of RF ASIC design to sectors that include:

- 2G/2.5G GSM, GPRS, TDMA, CDMA
- 3G WCDMA
- Bluetooth
- · GPS

ST's ASIC offerings, backed by all the worldwide resources of one of the world's major broad-based manufacturers, cover all areas of design and production and include leading edge technologies, packages and architectures including:

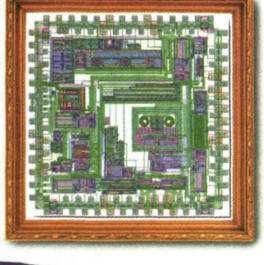
#### multi-process portfolio

- 0.35um BiCMOS with SiGe
- 0.18um RFCMOS
- · Integrated Passive and Discretes
- RF packaging
- Proven IP integrator
  - mixers 1 &2 GHz
  - LNAs 1 &2 GHz
  - VCOs to 4 GHz
  - · Prescalers to 4 GHz

The ST logo is a registered trademark of STMicraelectronics

Proven high-volume, multi-sourced supplier

For more information, contact our sales office on +46 8 58 77 44 66 or see our website at www.st.com





THE PEOPLE WHO MAKE SYSTEMS-ON-SILICON WORK FOR YOU

No. 18, \* November 16, 2000

# contact



The rock group U2 will be appearing in the MTV gala at Stockholm's Globen arena on November 16. During last year's ceremony in Dublin, U2 singer Bono was presented with MTV's special prize, the Free Your Mind Award, in recognition of his commitment to humanitarian programs in the Balkan region. Photo: Universal

# Star gazing at MTV's heavenly happening

> On Thursday November 16, when Stockholm hosts the MTV Europe Music Awards, hundreds of millions of music-lovers worldwide will be joining in the festivities. And thousands of Ericsson employees will be gathering all over Europe to celebrate the gala via live telecasts.

In Stockholm, some 1,800 Ericsson employees will be partying the night away at the Heaven nightclub, where the highlights of the celebration will include dancing, live music, contests, a live telecast of the MTV gala on giant TV screens, a big party and lots of surprises. A multimedia center in Oslo will be the venue for Ericsson's Norwegian "viewing party," which will feature contests, music and karaoke. Viewing parties will also

be held for Ericsson employees in Copenhagen, Bucharest, Budapest, Ljubljana and 11- Ireland so that they can experience the music festival together.

The idea of the viewing parties is to allow employees to directly experience Ericsson's involvement in MTV's music gala, to be held in Stockholm's Globen arena the same evening.

"We want to provide Ericsson employees with a taste of our sponsorship, a musical experience and an enjoyable evening. It's important that all employees feel a sense of participation when we stage a major event like our sponsorship of the MTV Europe Music Awards," says Kristina Forsman, manager of internal communications for the MTV event.

The MTV gala at Globen in Stockholm will be the focal point of an entire week of musical festivities in Stockholm.

Stockholm Music Week, which also has sponsorship support from Ericsson, will attract personalities from all parts of the music world. Seminars, nightclub parties, live mu-

sic performances and many other events will take place throughout the week.

On Wednesday, November 15, Ericsson vill present its Make Yourself Heard Award to a young, still-undiscovered Swedish musical talent at a gala ceremony in the Stockholm Cultural Center.

Ten prizewinners in Ericsson's internal MTV contest will also be traveling to Stockholm from various parts of Europe to see the MTV gala and talent competition live and enjoy a program featuring several days of music-inspired events.

#### Henrika Lavonius-Norén freelance journalis

The MTV Music Awards show will be telecast live on MTV on Thursday, November 16 from 9:00 to 11:00 p.m. CET.

#### UPCOMING

November 13-17: The Condex trade fair will be held in Las Vegas, in the US.

www.key3media.com/comdex/fall2000/index.html

#### UPDATES

Ericsson Enterprise is the new name of the Enterprise Systems business unit. Ericsson Enterprise AB is the new name of the parent company. Ericsson Enterprise offers business solutions.

#### **NEW ASSIGNMENTS**

Jan Malm has been appointed new manager of the China market unit and President of Ericsson (China) Company Ltd, effective December 1. He will succeed Michael Ricks, who has accepted a position as group manager of imGO, a Hong Kong-based investment company focused on Jan Malm wireless technologies. Ericsson is a majority owner of imGO.



Åke Karman started a new assignment as President of Ericsson Radio Access on November 1. He is also manager of the Antenna-Related Products core product unit.

Jan Erik Andersson has been appointed technical director of Ericsson Data Backbone and Optical Networks Division (DBO). Prior to his new appointment, he worked in a similar capacity for Ericsson in Canada.

Sara Mazur has been named radio network performance expert at access Network, Ericsson Research

ERICSSON

THE



Sara Mazur

#### SEK 250 225 Friday November 1 200 SEK 116,50 175 150 Start date 125 Sept. 9, 1997 Split 4:1 100 May 5, 200 Conversion price SEK 59 75 50 Unin Sep Unin Viar

An Extraordinary General Meeting of shareholders on September 9, 1997, approved a proposed convertible debenture program. The conversion period extends through May 30, 2003. For additional information, access the website: http://inside.ericsson.se/convertibles



# **Nacancies** At ERICSSON WORLD WIDE

#### **INSERT TO CONTACT NO. 18 2000**

#### ERICSSON AUSTRALIA PTY, LTD PRODUCT MANAGERS,

SYSTEM DESIGNERS,

TEST & DESIGN CO-ORDINATORS, PROTOTYPE ENGINEERS AND OPEN PLATFORM ENGINEERS ATM Signalling – 3rd Generation Mobile Systems – Leading the Way! EPA D/X is the Product Area responsible for ATM Signalling products. As part of the expansion plan, there are several vacant positions within the product area ATM signalling.

We are currently developing a number of signalling protocols to be used in the Universal Mobile Telecommunications System (UMTS) core network for the 3rd generation mobile systems (3G). The latest protocols include Q.AAL2, B-ISUP, GCP and Q.BICC with a further view to expand upon this protocol set into the IP multi-media domain. The evolution to the UMTS will give new and existing GSM operators the potential for a large range of multimedia services. It is the standard for delivering 3G services. Ericsson is the leader in the 3rd generation mobile service.

 Since the product area ATM has an end to end scope, covering standardisation right through to verification, various positions are open. These include product management, system designers, test and design co-ordinators and prototype engineers.

#### 3 Product Managers ref.no 00:1119

• The position involves different aspects of product management such as Business product management, Technical product management, Operational product management & Strategic product Management of the ATM signalling portfolio.

#### 2 System Designers ref.no 00:1120

• The position involves being able to prepare pre-study and feasibility study technical analysis studies as input into setting up the technical activities in the executing signalling projects. In addition, this position also involves the mentoring of others and participation in total project life cycle where the technical knowledge is necessary for successful project completion.

### 2 Test/Design Co-ordinators

• The position involves co-ordination of test/design development technical issues with impacted parties or projects such that agreed technical strategies are drawn up and cascaded across teams, projects and possibly organisations. This is a senior position, which requires the ability to resolve test/design technical issues promptly, ability to communicate technical issues/solutions in a format suitable to the project/line management and or the team members./affected parties.

## 6 Prototype Engineers

• The position has two facets. The first involves the development of small scale signalling stack prototypes using languages such as C/C++ or Java to prove signalling concepts and or architectural fit to platforms.

The second involves supporting of standardisation activities in building prototypes for use at demonstrations and IETF bakeoff type activities. The area requires people who feel very comfortable with coding and are familiar with different operating systems such as OSE delta, UNIX & WINDOWS NT. The people must be able to work quickly and have proto-types ready within a 4week time frame and be able to work from unclear/unstable requirements.

#### 20 Open Platform Development Engineers ref.no 001123

• The position involves the developing of complete signalling stacks on operating systems such as OSE delta, UNIX & TelOrb. By the use of visual model programming techniques (such as UML and or SDL), the signalling stacks shall be made to operate in a platform independent manner maximising the reuse of software components. We are interested to hear from you if you: Have a degree in Electronic Engineering or Computer Science (or equivalent). Have the ability and ex-

cancies within the Ericsson corporation. They are also published on http://www.ericsson.se/ jobs/international.shtml, International Openings, updated every second week.

This is a selection of va-

To advertise: mail your adverts to: employment. adverts@lme.ericsson.se.

#### **UPDATED NOVEMBER 6**

perience to work in teams. Are flexible, dynamic and highly motivated. Have a keen interest in being part of a unit striving for productivity/efficiency gains. Are innovative and creative.

It would be an advantage if you also: Understand network and signalling concepts in Mobile and Fixed Network. Have previous experience (hands on design or test) with protocols. Willingness to occasionally travel to Europe to represent the product area. Possess excellent communication skills & presentation skills.

Contact: David Dessardo, +61 3 9301 1621. Application latest 1st December: sue.holman@ericsson.com.au, Employee Services quoting relevant ref.no.

ERICSSON UNITED STATES, DALLAS, TEXAS

#### **Project Managers**

• KEY RESPONSIBILITIES: The selected candidates will independently plan and manage multiple projects through customer acceptance. Will also lead radio network design, implement and optimize projects, analyze contracts and provide project specification, risk analysis, budgets, schedules and responsibility matrix. The candidate will be responsible for developing and controlling project plan, budget, resource acquisition, leading project execution with assistance of market technical leaders, managing customer expec-

## Job Opportunities in Ericsson, Ireland

Network Operator Solutions Centre is a leading design centre, which provides Ericsson customers with solutions for the management and control of the multi-service Core and Fixed Access Networks. The unit provides management and control solutions across the Mobile Fixed Access domains

We focus on providing products and services that reduce the cost of ownership for network operators increasing the efficiency of their networks. We are dedicated to making our products the best of their type in the market.

If interested please send your Curriculum Vitae to

Michael McGann

Competence and Human Resources Manager Ericsson Software Campus Athlone Co. Westmeath

Ireland

Or email, stating the job applied for in the subject area

recruit.ath@eei.ericsson.se

#### Software Engineers

As a Software Engineer you will be working with applications for the management and control of Wireline and Wireless networks for Fixed and Mobile telecom networks. Essential skills include; C and C++, use case modelling techniques, Object orientated Analysis and Design techniques, especially UML, RUP (Rational Unified Process). You must have experience in developing on Open Systems (Unix preferably). Some telecom exposure would be of benefit.

#### Software Quality Engineer

Responsibilities will include; ensuring compliance to ISO9001 and facilitating CMM maturity level progression. You will work proactively with software development projects to capture and implement process improvement Opportunities. You must have up to 3 years working experience in a software development environment. Knowledge of software quality practices and project quality coordination is a must.

#### Configuration Management Engineer

We have excellent configuration management systems in existence; the challenge is in managing the transition to Open Systems. We need someone who is still involved with daily implementation issues in a multifunctional software environment. Essential skills and experience include; Degree in computing or software engineering. Two to three years working experience in a design environment. Working knowledge of Clearcase as a tool and an understanding of configuration management issues.

#### Technical Product Manager

As a Technical Product Manager you will take customer requirement for new Telecom Networks, add new functionality and make adaptations to Telecom Systems. You will write the technical specification documents and communicate these to software designers. Some liaison with sales staff will be required. Essential skills include; a degree or equivalent, 2 years experience in SW design in the Telecom industry. Up to 2 years Systems Engineer experience with an understanding of higher level architecture.

#### Regional Sales Manager (Telecom Management Products)

We are building a sales team comprising of a Regional Sales Manager and International Account Managers who will be working within the Americas regions. This team is responsible for establishing new and maintaining existing business in the 'wire-line operator market', selling Telecom Management Products. As a Regional Sales Manager you must have a proven track record of 'in-direct' selling with a background in the Telecom Industry. You must have between 3-5 years experience as a Sales Manager/Internal Account Manager. Technical knowledge of Switches, Transmissions and Access products are desirable. tations and establishing a detailed scope of work by working with Account Managers.

COMPETENCIES, QUALIFICATIONS AND EXPE-RIENCE: Requirements for these positions include a Bachelors degree in Engineering or Business discipline in project management or related area in the telecommunications (preferably Wireless) industry, Master degree a plus.

The Project Managers will have at least six to eight years of experience. Candidate should possess a working knowledge of business process flow and a basic knowledge of Ericsson projects is preferred.

Outstanding communication, negotiation, persuasion, presentation and conflict management skills are required.

Proficiency in computer systems and project management tools (MS Project, MS Office, SAP) required 40-60% travel

We offer competitive salaries and an excellent benefits package.

Contact: Trey Reed, Recruiter, trey.reed@ericsson.com

#### ERICSSON AUSTRALIA PTY, LTD, COMMUNICATIONS PLATFORM, **DEVELOPMENT BUSINESS UNIT, BROADMEADOWS, MELBOURNE AUSTRALIA**

#### **Software Designers** and Testers

Ericsson Australia Communications Platforms Development Sector (D/U) is active in a number of international development and support projects. These relate to the AXE Processor (APZ), Group Switch (GSS), Regional Processor (RP) and Media gateway areas. To cope with expanding work demands, we have a number of vacancies for AXE software designers/testers.

We are in the unique position of managing development projects involving both hardware and software design. This dual capability has, and will continue to open new business opportunities well into the future.

We are an integral part of the CNCP network (Network Core Products, based in Sweden). Our main customers have recognised our contributions by increasing its involvement in forthcoming global projects, critical in the race to develop the next generation communication.

You could have the opportunity to work in areas (locally and overseas) such as:Real time software development and verification. Fault tolerant SW design. Real time operating systems. Interconnection between different types of computers. RISC processors. Voice and data switching products. System Design (pre-studies, maintenance, prototypes).

Competencies/knowledge sought:Good working knowledge of the AXE core systems. Plex programming experience/SDL/C and C++ Programming knowledge. Familiarity with S/W tools & processes. Ability to adapt to and work with all cultures. The ability to work effectively in a team. Troubleshooting.

It is desirable that candidates have some experience in the above-mentioned competencies/ knowledge. A degree in electronics or computer science, or equivalent experience would be well regarded.

Contact: robyn.heard@ericsson.com.au, +61 3 9301 4368, Competence Manager or deborah.hamiltoin@ericsson.com.au, + 61 3 9301 1882, HR Unit Adviser. Application latest 001130: sue.holman@ericsson.com.au guote reference number 1108.

#### Local Product Manager -**Dominican Republic**

• We are now looking for an experienced prod-uct manager for a new GSM client in Dominican Republic who can support the KAM in driving the sales and marketing activities, provide product strategic information and system proposals to offerings to the assigned client.

The candidate should have a good technical

knowledge of cellular systems with a successful track record.

Knowledge of 3G Mobile technology and Ericsson's datacom solutions is a merit. As for your personality, we expect you to have a drive for result and excellent interpersonal skills. Fluency in English, Spanish is essential and knowledge in French desirable.

Contact: Mats Skoglund, General Manager Ericsson Dominican Republic, +1 787 771 1723, mats.skoglund@ericsson.com.

#### Local Support Engineer -**Dominican Republic**

The telecom markets in the area is in the process of deregulation with a number of possibilit within mainly cellular and datacom networks.

· We have an interesting challenge for you within our new GSM contract in Jamaica. The main responsibilities for this position will be to provide technical support for resolving complex problems at highest technical level. The responsibility will also include TR/CSR handling and being on emergency service.

The competene requirements are:Degree in Computer Science, Electronics or Telecommunication Engineering.

Minimum of 5 years working experience on AXE (mainly BSC). RBS 2000 of which at least 3-4 years experience should be on CME20 BSS systems in verification and/or support environment. Some knowledge in WAP and GPRS is desirable. Candidate should also have good English communication skills.

#### **GSM Local Product** Manager – Jamaica

The telecom market is growing strongly with hard competition between operators. Several large global operators are present in the region.

We are now looking for an experienced manager who can support the KAM in driving the sales and marketing activities; provide product strategic information and system proposals to offerings to assigned clients in our office at Kingston, Jamaica.

The candidate should have a good technical knowledge of cellular systems with a successful track record. Knowledge of 3G Mobile technology and Ericsson's datacom solutions is a merit. As for your personality, we expect you to have a drive for result and excellent interpersonal skills. Fluency in English is essential. Ericsson experience is requested.

#### Project Manager TDMA -Jamaica

 We are now looking for a Project Manager to handle the rapid expansion of our customer's cellular network in Kingston, Jamaica. The Project Manager should manage the implementation projects contract to customer acceptance in accordance with project time schedule, budget and quality requirements.

The candidate should have several years of experience of managing implementation of cellular networks.

As for your personality, we expect you to have a drive for result and excellent interpersonal skills

Fluency in English is essential. Ericsson experience is requested.

#### **Sales & Marketing** Manager GSM – Jamaica

• We are now looking for an experienced man-ager who can support the KAM in driving the sales and marketing activities; provide product strategic information and system proposals to offerings to assigned clients in our office at Kingston, Jamaica.

The candidate should have a good technical knowledge of cellular systems with a successful track record.

Knowledge of 3G Mobile technology and Ericsson's datacom solutions is a merit. As for your personality, we expect you to have a drive for result and excellent interpersonal skills. Fluency in English is essential. Ericsson experience is requested.

#### **£LIBERATING + EXCELLENT BENEFITS • GUILDFORD**

Ericsson is a company founded on the belief that communication is a basic need for everybody. As mobile phones and the internet converge to form the next technological leap forward in the shape of Mobile Internet, you'll find us at the centre of the action. Our 3G technology is revolutionising the way people communicate and as you'd expect from a company with our intense commitment to Research and Development the transition will be seamless. And like our technology our careers offer the freedom of endless opportunity.

Technical Consultant - mCommerce (Ref 374) As part of our new global customer solutions team, you'll provide technical support in our drive to boost our market share in mCommerce applications and infrastructure. Customer-focused, with excellent communication skills and a good grasp of the market, you'll also need a thorough grounding in systems, platforms, protocols, software development and systems integration. This internationally based role will suit someone who's keen to travel, with skills in at least two of the following applications - Perl, Java, C, C++, Unix and NT.

BSC Troubleshooter (Ref 407) Working as part of our BSC Product Support group on subsystems TAS and ROS, you will be required to analyse and propose solutions to troubleshoot reports received from our customers. You will have worked with the BSS and will have experience of troubleshooting/problem solving, as well as writing ACs and a knowledge of PLEX. This role is an ideal opportunity to gain a detailed knowledge of this complex system.

Software Engineers/Senior Software Engineers (Ref 219) We have a range of vacancies at different levels. As a Software Engineer, you will develop units of software and associated technical documentation using internally written specifications, working closely in teams with colleagues. You will also test the software using emulators. Included in the responsibilities of the more senior levels will be complex Systems Design, where you'll analyse customer requirements and indicate how these can be implemented into software sub-systems or software modules. These developments are in GSM and UMTS projects. A degree with a significant software component is preferred but not essential, although you will need to grasp new concepts easily. As a global company, we offer great opportunities for travel.

Software Engineers - WAP/Web (Ref 215) You'll be coding Java and C++ applications on a number of Unix and NT architectures for all types of WAP terminal. Operating as part of a team with minimal supervision, you'll work closely with product management staff and customers to establish requirements and liaise with product support to ensure smooth installation and operation of our services. You'll need at least a year's industrial software engineering experience at a technical level and a good degree. Skills in the following would also be welcomed: WML, HTML, XML, Java Servlets, C++, ASP, EPOCH, Perl, Unix, LDAP, HTTP, Oracle 8.x, Microsoft Access, Netscape, Enterprise and Netscape Directory Server.

Just as important, your imagination, drive and passion to succeed through effective teamwork must be up to the challenge of creating a new way of living and working. For more details on freeing yourself to build a cateer with the undisputed leader in mobile communications, visit www.ericsson.co.uk/UK/myfuture or alternatively email your CV to myfuture@etl.ericsson.se quoting the appropriate reference number.

ERICSSON 📕

## Deliver the 3rd Generation

Untie me

## MARKET UNIT CARIBBEAN

Market Unit Caribbean covers an area of 15 countries and 15 dependencies with some 27 million people. The telecom market is growing strongly with tough competition between operators. Several large global operators are present in the reaion.

#### TDMA Local Product Manager – Jamaica

• We are now looking for an experienced manager who can support the KAM in driving the sales and marketing activities; provide product strategic information and system proposals to offerings to assigned clients in our office at Kingston, Jamaica.

The candidate should have a good technical knowledge of cellular systems with a successful track record. Knowledge of 3G Mobile technology and Ericsson's datacom solutions is a merit. As for your personality, we expect you to have a drive for result and excellent interpersonal skills. Fluency in English is essential. Ericsson experience is requested.

Contact: Ake Ohnback, KAM, +1 876 754 8659.

#### RBS IE Engineer -Puerto Rico

The telecom markets in the area is in the process of deregulation with a number of possibilities within mainly cellular and datacom networks.

 Primary Functions: Radio Base Station Installation Engineering Engineer to work with TDMA and GSM systems.

The candidate will be a team leader that provides guidance and directions, drives improvement changes and the quality assurance for the following areas: Radio Site Investigation. Radio Site Design documentation (C-module). Preparation of drawings in CAD. Design of new project specific material. Investigate and solve engineering related problems.

The work should be performed in accordance with Ericsson methods, quality and safety standards.

Requirements: A degree in Electrical/Electronics engineering or similar education. Broad experience from RBS Installation Engineering within Ericsson. CAD competence and strong knowledge of computer programs.

edge of computer programs. Leadership skills. Independent, self-motivated and well organized with analytical mind. Cultural awareness. Ability to work independently as well as in a team. Self-starter and result oriented with strong interaction skills. Fully bilingual (English & Spanish). The candidate will be based in Puerto Rico but

will need to travel to other countries in the Caribbean such as Jamaica, Dominican Republic and Curacao.

Contact: Jan-Urban Johansson, Implementation Manager, +1 787 771 1700

#### Radio Network Design and Performance Ipmrovement Engineer GSM/TDMA – Puerto Rico

The MU Caribbean is responsable for marketing and deliveries of Ericsson products in the

Caribbean Region covering an area of 230,000 squares kilometers and with a population of 27 million people. Activities are carried out from offices in Puerto Rico, Dominican Republic, Jamaica and Curacao.

 We are looking for a Radio Network Design and Performance Improvement Engineer to help us in the fast growing business in the Caribbean and expand our current group of three engineers. We are experiencing significant growth in GSM networks in the region and need to care of this business. The candidate will be working with both design of new cellular systems, especially GSM, and optimisation of existing systems. The work will be performed in close cooperation with the RF Engineers from the operators. Most of the work will take place in Puerto Rico but traveling will be required for both design and optimisation work to the other islands in the region. Sale support regarding new systems as well as for expan-sions will be requested from and performed in close cooperation with local KAM, NAM and LPM's.

Responsibilities: Perform radio network performance improvement services for our existing TD-MA and GSM operators. Support the customers with network design for new systems and existing system expansions.

Requirements: Minimum 2 years experience within cellplanning and optimisation, preferably from GSM systems. Experience of Ericsson planning tools (EET/TCP). Knowledge about AXE statistical measurements and post processing tools. CMOS/OSS experience, especially Performance Management. Experience of drive-testing using TEMS tools. Consultant minded.

Contact: Stefan Ljungberg , Manager Radio Network Desing & Performance Improvement., +1 787 771 1700

#### Account Manager – Netherlands Antilles

The telecom markets in the area is in the process of deregulation with a number of possibilities within mainly cellular and datacom networks.

 The candidate will be responsible for the Ericsson's cellular operation in the Netherlands Antilles Regional office, reporting to the KAM in Curacao.

Candidate should have a BBA degree and professional experience of sales and marketing, project implementation and excellent customer service support skills. Responsibilities also include the coordination of expansion activities in the region. Operation activities are coordinated with the regional head office in Puerto Rico.

We expect the candidate to have a drive for result, teamwork and excellent interpersonal skills. Candidate must be able to work in a multi task style with innovation and creativity characteristics. As the area is multicultural, fluency in English and Spanish are essential.

We expect the successful candidate to start immediately.

Contact: Juan Rangel, General Manager/KAM Netherlands Antilles, +011 599 9 560 4417. Application for all the above: Noelia Borrego, HR Representative, noelia.borrego@ericsson.com.

EEI, ERICSSON SYSTEMS EXPERTISE, IRELAND

GSM Systems Manager, EEI CME20 Department

• Job Specification: The Systems Manager will be responsible for the evolution of Datacomms

(GPRS/EDGE) and Transmission and Transport in the BSC. The main activities involve: Leading a team of system designers, and managing their needs in terms of competence and career planning.Interfacing to the System team at the BSC node in Linköping and the BSS node in Kista. Managing requests for technical investigations, implementation proposals, and requirement specifications. Resourcing and managing the needs of the Product Committee PC-RTS. Participating within the GSM department management team. Providing technical guidance / support for the ongoing projects within the GSM department.

Experience required for the position: A minimum of six years in Software Design. Demonstrated ability in a technical co-ordination role. Participated in pre-study/feasibility phases of AXE design projects. Proven ability in technical report writing. Excellent presentation and communication skills. Thorough understanding of GSM is essential.

Previous management experience is an obvious advantage.

Application: Noeleen Waters, Recruitment.process@eei.ericsson.se.

#### **ERICSSON INDIA**

DO YOU KNOW WHICH COUNTRY CONTRIBUTES EVERY THIRD SOFTWARE PROFESSIONAL, GLOB-ALLY? WOULD YOU LIKE TO WORK IN SUCH AN INTELECTUALLY STIMULATING ENVIRONMENT? LOG ON TO DESTINATION INDIA

Ericsson has been associated with Indian telecom for over 100 years, since introducing its first product in 1903. Today, Ericsson's digital switching systems handle over 75% of the international calls made through VSNL gateway. Ericsson has installed over 1.2 million lines in India besides supplying telecom infrastructure equipment in the area of switching and transmission to DOT, MTNL and Indian Railways. Out of the 41 GSM networks in India 19 have been established by Ericsson thereby commanding more than 45% of the market share and 80% of Geographic spread of GSM coverage in India. Ericsson's R&D centres in Bangalore and Hyderabad create software for mobile systems, 3G and new technologies as well as internet/IP for use internationally.



#### Solutions Engineering Manager fliberating + excellent benefits • Guildford

Ericsson is a company founded on the belief that communication is a basic need for everybody. As mobile phones and the internet converge to form the next technological leap forward in the shape of Mobile Internet, you'll find us at the centre of the action. Our 3G technology is revolutionising the way people communicate and as you'd expect from a company with our intense commitment to Research and Development the transition will appear seamless.

As part of our busy mobile multimedia communications team, you'll manage all dimensioning and installation engineering activities - determining customer/factory requirements and ensuring we meet our customers' exacting time constraints and quality standards. Working closely with both other sector managers and our customers to meet our objectives, you'll need to present a positive company image. You'll also set objectives for members of your team, control manpower and budget requirements and help us in our drive for continuous improvement. We're looking for someone enthusiastic and dedicated, with sound dimensioning and installation engineering expertise including floorplans and A and B packs. You'll also need EESS and PLEASE and a good grasp of BYB 501 and BYB 502.

Just as important, your imagination, drive and passion to succeed through effective reamwork must be up to the challenge of creating a new way of living and working. For more details on freeing yourself to build a career with the undisputed leader in mobile communications, visit www.ericsson.co.uk/UK/myfuture or alternatively email your CV to myfuture@etl.ericsson.se quoting reference 455.

Deliver the 3rd Generation

ERICSSON 📁

3

All these make Ericsson the leader in the Indian telecom Industry

The market in India is expanding rapidly thus offering tremendous professional challenges. Most of the global leaders amongst cellular operators like BT, Hutchison, AT&T, Singtel etc have their presence in India in ventures with the local operators. You will work with a set of highly competent and committed professionals

Additionally Indian sub-continent offers opportunities to experience the cultural diversity, long history, a lot of natural beauty, which you will hate to miss. To top it up people here are warm and friendly; English is spoken widely; social acceptability is high, thus making living in India a pleasant experience. And make sure you have a chance to marvel at the beauty of TAJ MAHAL, a wonder of the world. For our expanding business in India we are looking for:

#### **IN Expert**

 Main responsibility of this position will be to manage co-ordinate and participate in investigations and trouble shooting at the highest technical level for a major market of IN services. Services like PPS, PPL, MVPN are currently/will be running in the market.

This position requires the person to provide technical assistance to transfer knowledge to engineers. The job will also involve travelling in India.

Competence requirements: Minimum two years working experience on IN systems, experi-ence on AXE 10,SMAS, SDP & PPS is highly desirable. The candidate should have good English skills (both spoken/written) and be highly customer oriented.

#### **SS Expert Support Engineer CME20**

 Main responsibility will be to manage co-ordinate and participate in investigation and troubleshooting activities in the SS area at highest technical level and to address customer's expectations/needs. Provide technical advice, assis

tance and transfer knowledge to the engineers. You also need to participate in 24-hour emergency support periodically. IN and pre-paid experience is desirable.

The job also involves travelling in India. Competence requirements: Minimum four vears working experience on AXE 10 Application systems plus minimum 2-3 years CME20 and or CMS40 systems, preferably verification/support and you have excellent trouble shooting skills. The candidate should have good English skills (both spoken/written) and be highly customer

Contact: Neelam Kataria, Officer Recruitment, (People and Culture) +91-11-6701538, Fax +91-11-6187878, neelam.kataria@eci.ericsson.se.

oriented.

#### ERICSSON TELECOMMUNICATIE B.V., RIJEN, THE NETHERLANDS

Within our Business Line Customer Services unit EGS we have a vacancy for:

#### **Front Office Administrator**

 Goal / challenge: Ericsson Global Support (EGS) within the division Business Line Customer Services is having a strategic role within Ericsson's Global Customer Support. The EGS is the escalation point for all Local support organisations (ELS'S) world-wide. The EGS makes Ericsson-expertise world-wide available. The EGS is an integrated 2nd line support organisation for all Ericsson products. The EGS has 3 hubs (front offices) in three different time zones (Holland, Canada and Australia) which makes them able to give 24-hrs support, 7 days a week. The activities

will be executed in an international environment. As a Front Office Administrator you are han-dling & routing the customer calls and CSR's to the right competence centers in the world. Chal-lenge is to develop a strong customer focus and get to know the Global Ericsson Support Organisation. You will have the possibility to develop yourself in this fast growing organisation and become for example an outage manager. You will

be working in a dynamic and international environment

Tasks: Helpdesk and consultation, Register CSR's from customers, Dispatch to the correct competence center / Emergency handling, Chase CSR handling to ensure closure before due date, Reporting on outstanding CSR's for customers, Support progress reporting. Required competen-cies: Education MBO level (MTS), Interest in technical procedures, Strong customer focus, Team spirit, Good communication skills in English. Ini-tiative, diplomatic and flexible. The home base is Rijen. However work abroad for both work and training is one of the possibilities.

Contact: Lars Andersson, Duty Manager, ext.2254 or Liselore Brabers, Customer Care Manager, ext 9991. Ref. vacancy no 118094.

#### **Customer Service** Specialist (GCSO)

• Goal / Challenge: The Global Customer Service Office (GCSO) within the division Business Line Customer Services has a leading role within Ericsson's Global Customer Support. The GCSO is the single point of contact for Global Operators to raise Customer Service Requests to Ericsson. The GCSO has 3 Hubs, located in three different time zones (The Netherlands, United States and Aus-tralia) which enables continuous 24Hr support to Global Operators therefore, all activities are being executed in an international environment. Our organization is characterized as challenging, dynamic, progressing and provides excellent oppor-

tunities for personal development. Tasks: We are looking for two Customer Services Specialists who will be responsible for: Managing both internal and external relations from a technical point of view. Support of customer networks to ensure optimum functionality of sold services. Solving Customer Service Re-quests (CSRs) reported by the customers. Monitoring and follow up of service requests escalated to second and third line support organization. Advising Customer Service Managers regarding services. Reporting to the customer about delivered services. Guiding of both trainee and less

experienced colleagues (mentorship). Required Competence: Knowledge of AXE, 5 years experience on AXE within Ericsson as a SW trouble shooter, able to work under pressure, attention for detail, team player and has good communication skills in English. The home-basis is Rijen.

Contact: Andrew Massie, Resouce & Duty Man-ager, +31 161 247216 or Agnes Brier, HR Officer, +31 161 247516.

#### ERICSSON TELECOMMUNICATIE B.V., RIJEN, THE NETHERLANDS IOCAL CUSTOMER

SERVICE ORGANISATION

The Local Customer Service Organisation is a unit within the Business Line Customer Services that provides services to our customers in the Netherlands. This organisation is responsible for the operational services sold to KPN, Libertel, Telfort and other operators. The LCSO consists of a Front Office, Customer Care, Software Maintenance and several, on functionality oriented, back offices. In total, 160 people are working for the LCSO. The LCSO presents itself as a young, professional and innovative team that is closely involved with its customers. Within the LCSO there are vacancies for:

#### **Technical Support Specialist Network & Service Management Systems**

The Back Office Managed Network Services team is responsible for supply, support and deliv-ery of various services on Network and Service Management Systems (e.g. OSS, SOG, XM, Billing Systems, etc.) for local as well as international customers. For the coming period until be-ginning 2001, UMTS will be rolled-out for at least 2 of our local customers. Are you looking for a challenge?

## Want to work with GSM on the Net in Nacka Strand?

We are Mobile Enterprise, a fast-growing product unit at Ericsson. We combine the mobility of GSM with the power of the Internet into a single Voice over IP/ GSM system, known as GSM on the Net. Our customers are GSM operators, Service providers and Enterprises. You'll have the chance to work on the forefront of technology in a stimulating international environment. We offer interesting and stimulating challenges with good opportunities for competence development. We work at the absolutely best site in Stockholm, just 10 minutes from Slussen, over-looking the waterfront in Nacka Strand.

"GSM on the net", based on open systems using standard HW servers, NT, C++ and Java technologies, is already at work in workplaces around the world, using all the resources of the local area network to combine telephony, mobility and data.

In Nacka Strand we are working with the IP telephony parts of the system, gateway and application design. It involves leading technologies including H.323, C++/Java, WAP, VoIP,

RUP, GSM, TCP/IP, ClearCase, ISUP, OSE, Oracle, Parlay, TAPI and JTAPI. The application area also covers, Outlook, MMC and web clients using XML, XSLT via a WEB server to a DCOM server with an Oracle database.

Join us in an organisation that will play a key role in shaping the future of systems integrating GSM and IP and also for migration to 3G.

#### We are looking for:

- Experienced system managers
- Software designers, C++ and/or JAVA
- Software & system verification engineers
- Technical project manager
- Unit manager for **Integration & Verification**

Visit http://gsmonthenet.ericsson.se/ and find out more about us.

For more information please contact: Bertil.Ahlen@era.ericsson.se +46 8 422 2356

Carina.Runefjord@era.ericsson.se +46 8 422 1675 Per-Martin.Persson@era.ericsson.se +46 8 422 2349 Thomas.Asberg@era.ericsson.se +46 8 422 2662

Send your application to: Ericsson Radio Systems AB SG/H Cecilia Jettel S-131 89 Stockholm jobs.gsmonthenet@era.ericsson.se



ERICSSON

Make yourself heard

 At the moment there are 2 vacancies for the position of Technical Support Specialist Network & Service Management Systems, to be filled by Long Term Contractors (for at least 2 years) or local contract.

Task description: Handling of Customer Service Requests and support on services (including 24 hours Emergency Support). Installation, configuration, integration and verification of Networkand Service Management Systems. Trouble shooting on hardware and software. Maintaining contacts with (internal and external) customers on a technical and professional level.

Required competence: High level of experience of UNIX (HP-UX and/or Solaris), Sybase, TCP/IP, X25. Work experience of at least 2 years with at least 2 products like OSS, XM, SOG, BGw, BMP. Customer focus, capable of working on your own as well as in a team, independent, immune to stress, flexible and enthusiastic. Problem solving attitude. Education HBO-level, preference HTS I/E. Good communication skills in English and preferably Dutch. The position is based in Rijen.

#### Technical Support Engineer Core Network Mobile

The Back Office Mobile Core Network is responsible for support and supply for the Core Network part of GSM (MSC/HLR) and UMTS (MGW/UM-SC/UHLR). At the moment there are 2 vacancies for the position of Technical Support Engineer Care Network Mobile, to be filled by Long Term Contractors or local contract.

• Task description: CSR/TR handling, advanced trouble shooting and emergency correction development. The main duties also include testing of future releases and the introduction into the live network. You will be on 24-hours emergency support and work in close relationship with the customer.

The competence requirements are: Minimum of 4 years working experience on GSM (mainly MSC/HLR) in support and/or verification environment. Customer focus and problem solving attitude. Candidates should also have good English communication skills. The position is based in Rijen.

#### Technical Support Software Maintenance

• As a Technical Support employee you are responsible for the correct handling of new software releases for the AXE for our local customers. The work involves testing, documenting and loading of software for both Mobile and Fixed networks. Task description: Test Software Correction Packages and new software releases in STP, Perform pilot tests with customers, Document content of Software Correction Packages, Rolling out the Software Correction Packages to customers.

Required competence: Education minimum HBO-level, prefer HTS E/I, Immune to stress, Precise, Both working in team as well as independent, Good communication skills in English, Preferably knowledge and experience with AXE, Strong interest in AXE technology and telecommunication in general. The position is based in Rijen.

#### Technical Support "Mobile Intelligent Networks"

 As a Technical Support employee you support the Mobile Intelligent Networks software as used in the GSM networks and the future 3G networks.

As a member of a Self-Directing Team your work involves handling customer problems on MIN and playing an active role in supply-activities in projects.

Task description: Handling Customer Service Requests taken by the Front Office and dispatched to you (including 24 hrs. Emergency Support). Write emergency corrections. Troubleshoot (mostly off-site) critical problems in supported systems. Installation, configuration, integration and verification of MIN networks. Maintaining contacts with (internal and external) customers on a technical and professional level.

Required competence: Education on HBO-level, preference HTS I/E. Several years of high level of SW-experience on AXE (incl. DT) on Testing 2 / Testing 3 level. General knowledge on APZ, IOC, GSS and SCP is a need. High level of knowledge on PLEX/ASA as well as experience with Deskchecks and the creation of emergency-corrections. It's a benefit to have knowledge of the Ericsson tools as MHS, MSS, PlexView and ALEX.

Personalily: Customer focussed, capable of working on your own as well as in a team, independent, immune to stress, flexible and enthusiastic. Having no problems with now and then making overtime and doing 24 hrs. Last Resort shift. Problem solving attitude. Good communication skills in English and preferably Dutch. The position is based in Rijen.

Contact: Marjolein von Reth, Co-ordinator Recruitment & Selection, +31 161 249850.

#### ERICSSON BELGIUM

#### Senior AXE Troubleshooter

Ericsson Belgium has won several contracts involving AXE10 during the last 3 years, both in wireline and wireless business. A local support organisation has been set up 2 years ago, with now over 20 people. This support organisation will further expand in the coming months. The main challenges are to be prepared to support the 3G networks, and to strengthen its AXE10 expertise.

• We are looking for a very experienced AXE10 engineer. The candidate should have at least 5 years experience with AXE10, including several years in field support. We expect a person capable of complex fault analysis and resolution (using Plex and Asa), able to write emergency corrections and market corrections, and to participate in upgrades and updates. Working independently and analysing complex problems in a structured way are essential. The candidate will participate to the 24-hour emergency service. Transfer of knowledge to the local Ericsson staff is one of the main objectives. The environment is one of trust and team spirit, combined with a good customer relationship.We are looking for someone for a period of at least one year.

Contact: Ms. Sarah Foubert, Human Resources Department EBR, Raketstraat 40, B – 1130 BRUS-SEL, sarah.foubert@ebr.ericsson.seor Mr. Serge Vanhoffelen, Manager Customer Support Services, Raketstraat 40, B – 1130 BRUSSEL, serge.vanhoffelen@ebr.ericsson.se.

COMPANIA ANONIMA ERICSSON, VENEZUELA

#### **Customer Care Manager**

 The current position requires: Understanding the importance the long-term customer relationship. Excellent communication; interpersonal, facilitating, influencing and collaborating skills.
 Ability to work in a mult- task environment. Good verbal and written communication skills, in both languages (Spanish and English).

Ability to adapt himself easily to change required to achieve an effective performance of the essential job's functions, in order to satisfy the requirements of growing and developing in our company. Capable to manage multiple projects at the same time. Responsible for the establishment of Key Performance Indicators (KPI) with the purpose to measure the customer's satisfaction.

#### Data Network Solutions Manager

The current position requires: Sales and Marketing experience in Data Network portfolio. Achieving sales revenues and margin objectives regarding with the company's strategic plans and annual budget. Identifying opportunities and develop sales strategies to capture new business. Proposing business with added value to our customers. Conducting sales presentations that provides technical and commercial information about the company's products and services. Negotiating sales contracts with customers. Focus on end-to-end solutions from a customer's perspective.

Contact: María Isabel Meneses, +58 2 273 0181, maria.meneses@cev.ericsson.se, fax +58 2 273 0374. Application: Compañía Anónima Ericsson. Av. Francisco de Miranda, Centro Empresarial Parque del Este. Piso 6. Dirección de Recursos Humanos. La Carlota. Apartado 70516, Caracas 1071, Venezuela

RSDC – LATIN AMERICA, ERICSSON SERVIÇOS DE TELECOMUNICAÇÕES LIDA., SÃO PAULO, BRAZIL

#### Senior Consultants and Consultants

Latin America offers you a huge expanding telecom market with an expected increase of 50% in the subscriber base only this year, new licenses for PCS, WLL and 3G migration, strong macroeconomic growth and the very best of Latin culture.

The Regional Service Delivery Centre for Latin America and the Caribbean is responsible for the delivery, co-ordination and development of Network Design and Network Performance Improvement services in the region with base in Sao Paulo, Brazil. All technologies represented in Ericsson Services and the region are part of the assignment. The main standards are thus: TDMA, CDMA, GSM and Fixed Networks.

 The successful candidate has: A consultant profile with excellent teamwork and customer relation skills, University degree and fluency in English. Operator experience, Spanish and Portuguese are desired. All positions have extensive customer contact. We have the following posi-

tions opened: Radio Network Design and Performance Improvement

Senior Consultant - min 6 years relevant experience. Consultant - min of 3 years relevant experience.

The task involves RF design, RF optimization,

frequency planning, IS136 knowledge, microcell and indoor design, strategic planning and others. Switching Network Design and Performance Improvement

Senior Consultant - min 10 years relevant experience. Consultant - min of 5 years relevant experience.

The task involves Traffic dimensioning, O&M, Data Transcript, #7 signaling, AXE and other Ericsson equipment knowledge and others.

Datacom Network Design and Performance Improvement

Senior Consultant - min 6 years relevant experience. Consultant - min of 3 years relevant experience.

The task involves SNMP, traffic and billing requirements, Unix, NT, Model tools (e. g. PlasmaSim), Routers, IP and Wan networks, security systems, to design and troubleshoot.

Application: Marcio Bernardo, marcio.bernardo@edb.ericsson.se, +55 11 6224 1750

#### ERICSSON CANADA INC.

#### Prepaid Product Entity TDMA/CDMA

Prepaid is expanding rapidly in the TDMA/CDMA market with penetration rates in excess of 80% in Latin America markets. The current installed base is in excess of 15 million TDMA subscribers predominantly in the Latin American markets.

At LMC we are responsible for PrePaid toward the TDMA/CDMA markets utilizing a partially outsourced solution from our 3rd party vendors. The core responsibilities of the PrePaid product entity are to define, develop, integrate and ensure all activities are performed for the introduction of the Ericsson PrePaid products & services for TDMA/CDMA systems into the world market and manage the product maintenance and lifecycle. Have a look at

http://www.lmc.ericsson.se/lmc\_r to learn more about PREPAID! Rosemary Heck (Director, Pre-Paid Product Entity TDMA/CDMA)

 The positions to be filled are in the following areas:Product Management (Ref:R-4866c). System Management (Ref: R-4863c). Integration and Verification (Ref: R-4862c). Trouble Shooting for Open Systems (Ref: R-5633c).

Profile: The ideal candidates should have; a broad knowledge of Ericsson products and organization, ability to manage and work with external suppliers, ability to work with customers.

Application: CV to GeneviÈve Blouin, Human Resources Consultant, Prepaid, indicate ref. number; human.resources@Imc.ericsson.se.

#### **ERICSSON NEW ZEALAND**

Ericsson New Zealand currently have a number of exciting new positions due to the expansion of the Telecom Mobile Support contract. These vacancies are in a number of different locations throughout the country and require people who are committed to exceeding our customers' expectations in the area of service.

#### Network Controllers – Hamilton

As a Network Controller you will be responsible for ensuring the effective monitoring and surveillance of system alarms and network traffic.
 You will also be required to ensure that all TDMA network alarms are immediately actioned or escalated.

To succeed in this role you will have had previous experience in network surveillance, preferably cellular. You will also need to have some degree of flexibility in your working hours as this role involves shift work.

#### Operations and Maintenance Engineers – Hamilton

 In this role you will be expected to proactively maintain and trouble shoot any issues that arise within the TDMA network.

You will have previous experience working with Ericsson AXE and RBS nodes (preferably TD-MA) as well as a background of working in a trouble shooting role. Basic Unix skills would also be helpful.

#### Customer Services Engineers – Wellington

You will provide a direct customer interface into the support of Ericsson's customers' networks. You will also be involved in system surveillance and daily maintenance routines. As a member of the Customer Service team you will participate in the after hours support roster as well as work in project teams implementing new technology systems.

You will have had previous telecommunications experience, preferably Unix based and also have experience in a trouble shooting role.

#### Network Analyst – Hamilton

 This role is responsible for ensuring that adequate TDMA network traffic data is available in an applicable format to those who require it. You will also be responsible for analysing network data and helping to identify solutions.

Ideally you will not only have experience of statistical analysis but also an understanding of radio networks. You will also have experience with statistical databases, preferably MS Access.

#### Radio Specialist – Wellington or Napier

 You will provide RBS and air interface consultation as required as well as providing internal and external TDMA and radio base station training

You will need to have has extensive telecommunications experience with a particular focus on radio network engineering.

All of these roles require people with excellent communication skills and the ability to proactively seeks solutions to issues. We need people who can cope with pressure, have a can do attitude and who are committed to working in a team environment. This is an exciting opportunity to be part of a growing team.

Application: cassandra.cook@ericsson.co.nz, Vacancies, c/o Cassandra Cook, P O Box 11-745 Wellington, NEW ZEALAND.

#### SAUDI ERICSSON COMMUNICATIONS COMPANY LTD. SAUDI ARABIA

#### **Customer Service Manager**

• Switching and DataCom Network. We are seeking a Support Manager for one of our support contracts. Your role will be to lead a team 10 Computer and Telecommunication Engineers and to be responsible for all our contractual activities towards this customer. You must have the following experience: Managerial experience as Line or Project Manager, Experience of Computer Applications based on Solaris and SUN hardware, General Telecom experience.

Being a Customer Service Manager requires both professional and social skills, flexibility and a strong customer focus. Since we operate in a multicultural environment, you must be aware of, and be able to handle cultural differences. Leadership, communication and co-ordination skills are required.

Contact: Per Ljungberg, +966 1 478 5800 x 435, per.ljungberg@xks.ericsson.se or Bo Wiklund, +966 1 478 5800 x 440, bo.wiklund@xks.ericsson.se

ERICSSON GMBH, DUSSELDORF, GERMANY -

#### Team Leader Radio Access Services and Core Network Services

• Are you ready to take on the challenge to lead a young team of engineers into the technologies of the future?At EDD, Germany, we are responsible for one of the fastest growing mobile network in Europe.We are looking for two Team Leaders with a minimum of three years work experience in the area of GSM / Fixed Network. You will be responsible for a group of around 10 people which includes resource planning according to forecast, day-to-day operation, competence development, goal setting and evaluation, assignment analysis and stand in for the Section Managers.Our work includes supply and support for BSS, UTRAN, GSM on the Net, CSS, MGW, IP BSS and the Core Network of UMTS.

In GSM our main customer is Mannesmann Mobilfunk (MMO), with one of the biggest GSM network. For UMTS, we are working for Mobilcom, Mannesmann and possibly other operators.

As we are in a very expanding time and the successful candidate will have excellent future opportunities. The following background is required: Open minded, leader ship skills, team oriented. Leadership experience and/or successful performed Project tasks like test leader or Project Manager is a plus.

Contact: Core Network: Mikael Strandberg, +49 211 5342359, Mikael.Strandberg@edd.ericsson.se, Radio Access: Harald Taugs, +49 211 5342333, Harald.Taugs@edd.ericsson.se.

#### EED, HERZOGENRATH/AACHEN, GERMANY

EED in Herzogenrath/Aachen, Germany, in the heart of western Europe, is a young and growing company with an open working atmosphere and highly motivated colleagues.

As part of the Core Network Mobile System operations, EED has the overall responsibility for the MSC/VLR product and the Integration, Verification, Supply & Support of UMTS Core network Mobile Systems. With that responsibility, EED will play a key role in introducing and supporting the 3rd generation mobile systems, UMTS, on the world market.

EED/X/R department at EED has the overall project responsibilities for the complete node deliveries. We are about to embark on one of the most exciting and challenging projects within Ericsson. GSM R9 project, and our first UMTS delivery, have been combined together in order to maintain our strong market presence and ensure that we are FIRST-TO-MARKET with the UMTS package. We now need strong and experienced individuals to support our project and department team. The following positions are now open: The NPU-MSC Project Office EED/X/R is looking for a

#### MSC (SS Node) CN1.5 Product Introduction Manager

Proj.No 183/E00

• The NPU-MSC Project Office EED/X/R at EED has the project management responsibility for the Switching System (SS) from TGO to phase out. The MSC node responsibility include all GAS software delivered from NPU-MSC, CAPC, CNCP, CSPP, SCSA (GDB) and RDS.

The responsibilities include planning and execution of MSC related product introduction activities for Acceptance and Primary Consolidation. You would manage the MSC PI team and be responsible for having the appropriate enablers (resources, tools etc.) in place for the project execution. In this position, you as a project manager would interface to the MSC CN1.5 Indus project and report directly to the Core Network 1.5 Product Introduction Manager.

As a suitable candidate you have several years of Ericsson experience with good competence in the area of AXE software verification and supply process. You possibly have Project or Line management experience.

#### MSC (SS Node) Support Project Managers

Proj.No 184/E00

 We now need Support Project Managers to overlook all 3rd Line Support aspects of the SS Node. In this position, you as a project manager would interface to the various supplying organisations and report directly to the Core Network level Support projects.

As a suitable candidate you have several years of Ericsson experience with good competence in the area of Maintenance and Modification Handling, AXE Support.

You possibly have project or line management experience and are familiar with SW Support processes. You should have experience in Configuration, Product and/or System Management in AXE. The work involves continuous contact with various internal Ericsson functions. Close cooperation with PLM, System Management and Core Network Support Project Office is required. The activities span from issuing assignments, planning, managing and following-up on all related support activities such as Correction packages, Software handling (packages), ISP, etc.

In any of these positions you will need good planning, communication and co-operation skills. There are plenty of opportunities for travelling, networking, personal and technical development. Don't hesitate to give us a call for further information.

Contact: EED/X/R, Andreas Westh, +49 2407 575 7869, Andreas.Westh@eed.ericsson.se; EED/X/R, HR, Christina Schneidawind, +49 2407 575 7814, eedcsch@eed.ericsson.se

#### Total Project Manager for the UMTS 3.0 / GSM R10 MSC Project

#### Proj.No 185/E00

 As Total Project Manager your primary task will be to set-up and coordinate the planning activities for the GSM R10 MSC release, combined with the UMTS 3.0 features, in parallel with the ongoing UMTS 1.5/2.0 and the coming UMTS 4.0 projects. You will be working closely together with the project management teams for the other UMTS projects, as well as with the Core Network Total project.

The main tasks and objectives will be: Support and steer the UMTS 3.0 / R10 Feasibility Study teams, planning of the UMTS 3.0 / R10 execution phase, Follow up and report progress, time, costs and quality, coordinate UMTS 3.0 / GSM R10 needs with the other ongoing projects, ensure fulfilment of the project goals, interface to the Core Network total project and the Project Steering Group.

For this key position we are looking for a Senior Project Manager, with several years of project management experience within international organizations. Line management experience would be an asset.

#### Assistant Total Project Manager for the UMTS 3.0 / GSM R10 MSC Project

Proj.No 186/E00

• As Assistant Total Project Manager your primary task will be to, together with the Total Project Manager, set up and coordinate the planning activities for the GSM R10 MSC release, combined with the UMTS 3.0 features, in parallel with the ongoing UMTS 1.5/2.0 and the coming UMTS 4.0 projects. You will be working closely together with the project management teams for the other UMTS projects, as well as with the Core Network Total project.

The main tasks and objectives will be: Support and steer the UMTS 3.0 / R10 Feasibility Study teams, planning of the UMTS 3.0 / R10 execution phase, follow up and report progress, time, costs and quality, coordinate UMTS 3.0 / GSM R10 needs with the other ongoing projects, ensure fulfilment of the project goals, interface to the Core Network total project and the Project Steering Group.

For this position we are looking for a skilled Project Manager with several years of experience from project work within an international organization. The Total Project Manager and the Assistant Total Project Manager will work as a team, and independently divide tasks between each other.

#### UGM (MSC 1/APT) Project Manager for the UMTS 3.0 / GSM R10 Project

Proj.No 187/E00

UGM is the acronym for UMTS GSM Mobile applications. As Project Manager your primary task will be to set up and coordinate the MSC/Application part of the GSM R10 MSC release, combined with the UMTS 3.0 features. You will be working closely together with the project management teams for UMTS 1.5/2.0 and later UMTS 4.0, which will be running in parallel, both on MSC total and MSC/Application level.

The main tasks and objectives of the UGM team will be: Support and steer the Feasibility Study teams and the subprojects, planning and execution of the UGM 3.0, follow up and report progress, time, costs and quality, coordinate between UMTS 3.0 and the parallel projects, ensure fulfilment of the project goals, interface to the MSC total project and the Project Steering Group.

For this position we are looking for a skilled Project Manager with several years of experience from project work within an international organization. Experience of AXE SW and mobile systems would be an advantage.

#### UGM (MSC 1/APT) Assistant Project Manager for the UMTS 3.0 / GSM R10 Project

#### Proj.No 188/E00

UGM is the acronym for UMTS GSM Mobile applications. As Assistant Project Manager your primary task will be to, together with the Project Manager, set up and coordinate the MSC/Application part of the GSM R10 MSC release, combined with the UMTS 3.0 features.

• You will be working closely together with the project management teams for UMTS 1.5/2.0 and later UMTS 4.0, which will be running in parallel, both on MSC total and MSC/Application level

The main tasks and objectives of the UGM team will be: support and steer the Feasibility Study teams and the subprojects, planning and execution of the UGM 3.0, follow up and report progress, time, costs and quality, coordinate between UMTS 3.0 and the parallel projects, ensure fulfilment of the project goals, interface to the MSC total project and the Project Steering Group

MSC total project and the Project Steering Group. For this position we are looking for a Project Manager with several years of experience from project work within an international organization. Experience of AXE SW and/or Mobile Systems would be a clear advantage.

#### Overall UMTS/MSC/VLR Test Leader UMTS CN 1.5/2.0

Proj.No 189/E00

• As Overall Test Leader your main tasks are: definition of overall test strategy, to coordinate the test planning of subprojects, coordinate all test related problems, supervision of the test execution phase, be the contact person towards TCM, progress reporting to the GMSC/MSC/VLR project manager . You will be part of the MSC node project team and work together with the test leaders of the subprojects and associated projects.

Your main responsibility is to make sure that all new features are successfully verified until MS8 (end of Function Test).

You should have several years of experience in Function Test. You need to establish a good contact network, be very self-driven and cooperative, and have excellent communication skills. Previous experience as a project or team leader would be an asset.

We offer a possibility to join a dynamic, truly international organization, and work in the forefront of the mobile systems development, facing a tremendous resonance from the competition and thus a real challenge ahead.

Contact: EED/X/R, Robert Mellberg, +49 2407 575-98155, Robert.Mellberg@eed.ericsson.se; HR, Christina Schneidawind, +49 2407 575 7814, eedcsch@eed.ericsson.se

EED/X/P is responsible for the development of the applied mobile source system (1/APT) and the Mobile Switching Subsystem (MSS) within the 2nd and 3rd generation Mobile Switching Center (MSC). We work from pre-pre studies through execution until product phase out. Next years the challenge will be to migrate to a new core network architecture satisfying both the GSM and UMTS customer requirements. We are a growing organization and will expand from 85 to ca. 120 people in the next years. As a result of this we need to strengthen our core competence in all technical areas. We have job opportunities for:

#### Software Design Engineers/Software Test Engineers

Proj.No 35/E00

• As a result of this we would like to strengthen our core competence in traffic handling and network architecture with external expertise. We are offering plenty of opportunities to learn and progress in a challenging and changing design development and software test environment. You would be part of a fast moving team developing and testing a new system, which migrates towards a successful future proof development product. A key product for Ericsson for its market positioning.

For this reason we are looking for a number of experienced software design and software test engineers who want to play a leading role in the evolution of Ericsson's products in the fast moving mobile world market.

For Software Design: You should have a minimum of 2 years experience in a design development area be familiar with complete telecom systems, have programming experience in a number of different languages, SDL knowledge, a background in telecommunications is preferred with a working knowledge of structural design methods is required for this position. To understand the complexity of our system is part of each designer's responsibility whenworking on our software modules, the design documentation for the interfaces or the system studies.

For Software Testing: You should have a minimum of two years experience in software maintenance or software testing, be familiar with complete telecom systems, have programming experience, very good analytical abilities and a strong interest in troubleshooting. Experience in software testing in a simulated or real environment, preferably on AXE10 with mobile application is a clear advantage. Currently we are also running a Pilot investigating the usage of new test environments such as TTCN in order to enhance our our software testing possibilities for futureproducts. Throughout our design projects we use the team work concept which encapsulates the team's responsibility for planning the work package, designing products and producing associated documentation as well as function testing of the work package.

For both positions: Relevant Ericsson experience is a plus but not essential. To be successful you need to have very good communication skills, quality orientated, innovative and a strong team player.

#### Experts in Remote Function Change 3rd Generation, UMTS

Proj.No 193/E00

 Remote are the mandatory methodes for upgrading and updating of AXE based nodes. All future UMTS nodes have the same requirement on remote update and upgrade facilities.

remote update and upgrade facilities. CN Maintenance and Support in EED has set up a team that is responsible for the Subroutines and Main Script development, verification, maintenance, TR Handling and Data Base Maintenance of Subroutines, WWW, Documentation, Process and Competence development, On Site Support for Remote Upgrades and coordination of activities with BSS, CMS88 and Wireline. To cope with these new tasks we need you and your expertise. We need Remote Scripting experts that know about AXE from FSC and customer point of view and that know about Function Change and package loading. We offer the possibility to prepare the future UMTS nodes in respect to their upgrade and update handling in the field. If you see your future in improving the Remote Idea in Ericsson, then come to the Core Network Upgrading and Remote team.

Contact: EED/S/L, Johann Boettcher, +49 2407 575-89420, Johann.Boettcher@eed.ericsson.se; HR, Markus Helfrich, +49-2407-575-89447, Markus.Helfrich@eed.ericsson.se

The Core Networks Configuration Management Department (EED/S/O) is part of the Core Networks Verification and Integration Centre (CNIC). The department is responsible for test configuration management (TCM) for Core Networks verification projects and NPU-MSC function test (FT) and verification projects. We are presently seeking candidates to assume the duties of:

#### INDUS & TCM Project Manager - UMTS CN 1.5/2.0 Proj.No 104/E00

ļ

• Your main tasks are planning and coordinating all TCM activities for the function test and CN verification projects. These activities include completing the TCM Feasibility Study, and coordinating the TCM/CM activities of Data Transcript, Dump Assembly and Test Network Configuration, GAS Specification, Program Production, Parameter Administration, MHO Administration, Library Specification and Production, and Ericsson ClearCase configuration, alignment and support throughout the project. Coordination with other CN TCM organizations is required to secure accurate deliveries to CN verification.

You will work closely with the SS Node and CAPC design, function test and verification project leaders as well as the overall UMTS CN project manager. You will be responsible to guide the TCM project from the start of FT through to GA of the release.

You have competence as designer, tester, or in TCM, have previous line or project management experience (desirable), have strong organization, planning, coordination, and communication

## The right engine can take you anywhere. The right position takes you where you want to be.

Ericsson's Division Multi-Service Networks (DMN) is one of the leading players in the market of migrating the classical fixed line telephony network and building the New Telecom Worlds broadband multi-service networks based on IP and ATM. With a number of key contracts based on ENGINE during the last 12 months we are taking new steps to strenghten our position as the leading solutions provider in this emerging market.

We are addressing a market that is growing more than 15 to 25% annually and are currently active on more than 100 markets around the world. The Marketing organisation under DMN is providing leadership to the market and other divisions around Solutions Marketing, Business Intelligence, Marketing Communication & Strategies and Commercial Marketing.

We are looking for people who are enthusiastic, optimistic, creative, get-it-done individuals who like the challenge of working in an environment that is fast-paced and dynamic.

#### **Commercial Marketing** Managers

Commercial Marketing is responsible for providing commercial expertise and Value Based Selling techniques to our Product Programs, Customer Groups and Market Units. The objective is to bridge the gap between our solutions and the business benefits and drive the focus towards customer value.

As a Commercial Marketing Manager you will be working in one of our product program marketing teams. In this role you will build your competence around business understanding and customer solutions. With this knowledge you will work with describing and communicating the customer value. With the foundation of Value Based Selling you will provide commercial expertise and support to Customer Groups and Market Unit Account Teams. You will drive the solution's commercial sales structure, price and price model and the pricing guidelines. This includes the development of supporting material such as customer business cases and value argumentation.

We are looking for senior people with experience in marketing and sales, preferably in the telecom or datacom segment. We are also looking for younger people seeking a position to build up competence for a future position within an Account Team. Less experienced applicants should have a master's degree in Marketing or both Marketing and Science. You are highly motivated, analytical, a good communicator, willing to travel and eager to learn about our solutions and translate them into business value. You have the ability to sell ideas and get others to adopt them. Social skills and ability to navigate and interact in a dynamic organization is very important.

#### Hiring Manager:

oto

Clair Holland, Director, phone: +46 8 719 67 24 Clair.Holland@etx.ericsson.se

#### Solutions Marketing Managers

Solutions Marketing is responsible for providing solutions marketing expertise to our Product Programs, Customer Groups and Market Units. The objective is to bridge the gap between our technology and the solutions benefits towards our customers.

As a Solutions Marketing Manager you will be working in one of our product program marketing teams. In this role you will build your competence around business development, marketing strategy and Market channel Management. With this knowledge you will work with market messaging, solutions positioning, development of marketing plans and launching of new and existing solutions onto the market. You will actively work with the market channel providing Solution stories, competence development, events and solutions marketing messages for market units and customers. This includes the development of supporting sales kit material so that the market channel is fully informed and educated.

We are looking for senior people with experience in marketing and sales, preferably in the telecom or datacom segment. We are also looking for younger people seeking a position to build up their competence in a very dynamic marketing environment. Less experienced applicants should have a master's degree in Marketing or both Marketing and Science. You are highly motivated, an excellent communicator, willing to travel and eager to learn about our solutions. You have the ability to strategize and come up with solutions and sell those ideas internally and externally. Social skills and ability to navigate and interact in a dynamic organization is very important.

#### Hiring Manager:

Tom Walsh, Director, phone: +46 8 719 13 79 Tom.Walsh@etx.ericsson.se

#### **Business Analysts**/ Senior Consultants

The Business Intelligence/Competitive Strategies group is responsible for providing expertise on market and product analysis within a multitude of strategic and operational activities. The assignments cover such areas as support to the divisions' strategic planning, involvement in product management, briefings to tender teams, training of employees and many other tasks. We build our knowledge both from external sources and from contact networks throughout the global Ericsson organisation.

We are looking for senior people that want to initiate and drive change in a dynamic market. You need experience from strategy work, marketing or product management within an IT and/or telecom company. Our environment is very dynamic so you need to able to handle multiple tasks in a high pace. The role includes both analytical and consultative aspects, however the balance is dependent on your individual background and skills.

If you have lots of drive, want to make a difference and enjoy working in a global context, don't hesitate to get in touch with us.

#### Hiring Manager:

Mikael Goldberg, Director, phone: +46 8 719 43 84 Mikael.Goldberg@etx.ericsson.se

#### Value Creator Analyst

Commercial Marketing is responsible for coordinating the training, promotion and facilitation of the Value Creator, our suite of Value Based Selling, Business Case and Debriefing Seminars. This role is a vital part of the central point of business case methods, theories and practical experience within DMN.

As the Value Creator Analyst, you will be working with DMN Product Units, Customer Groups and Account Teams. You will be responsible for debriefing facilitators after every Value Based activity, collecting workshop results and feedback, analyzing and presenting de-sensified results, making conclusions on an aggregate level. Being the analyzer of all the Value Based activities and specifically the Value Based Debriefing, you should be prepared to facilitate Value Based workshops with account teams around the world, focusing on analyzing won or lost contracts and the underlying reasons for the outcome.

Additionally, you will monitor the training needs of facilitators, identify participants, further develop facilitator training and actively participate in the training. As a part of the core VBS team, you will evaluate and improve the accessability of Value Creator material and results, including putting demands on development of the Value Creator web-portal.

Make yourself heard.

We are looking for a 'value-minded' person with the ability to navigate our organization effectively. You are highly motivated, with good structure, an excellent communicator, willing to travel and eager to apply Value Based techniques throughout our organization. You have a good working knowledge of Ericsson and our solutions. Familiarity with the Holden approach to Value Based Selling is a plus! You have the ability to sell ideas and get others to adopt them. Social skills and ability to navigate and interact in a dynamic organization is very important.

#### Hiring Manager:

Clair Holland, Director, phone: +46 8 719 67 24 Clair.Holland@etx.ericsson.se

#### Value Based Business Case Analyst

Commercial Marketing is responsible for coordinating the training, promotion and facilitation of the Value Creator, our suite of Value Based Selling, Business Case and Debriefing Seminars. This role is a vital part of the central point of business case methods, theories and practical experience within DMN.

As the Value Based Business Case Analyst you will support the Commercial Marketing Managers in business case development, adding the financial depth while focusing on making it easy to understand. You will facilitate workshops with different Product Units, driving the development of value argumentation and business cases. In this work, you will naturally evolve the standard structure of business cases used within DMN today, pushing for business cases to be created for identified solutions and in accordance with your requirements. Additionally, you will support the Customer Groups with business case theory and customer specific cases if needed.

We are looking for a 'value-minded' person with the understanding and experience of the theoretical and practical use of customer business cases. You are highly motivated, with good structure, an excellent communicator, willing to travel and eager to apply Value Based techniques throughout our organization. You have a good working knowledge of Ericsson and our solutions. Familiarity with the Holden approach to Value Based Selling is a plus! You have the ability to sell ideas and get others to adopt them. Social skills and ability to navigate and interact in a dynamic organization is very important.

#### Hiring Manager:

Clair Holland, Director, phone: +46 8 719 67 24 Clair.Holland@etx.ericsson.se

For any of the positions above, mark you application with the job you apply for and send it to:

Ericsson Division Multi-Service Networks Attn: Nils Stattin 126 25 Stockholm



ERICSSON

VACANCIES

skills, can actively drive requirements and seek solutions to complex problems.

Contact: EED/S/OC, Charles D. Grinstead, +49 2407 575 341, eedcgr@eed.ericsson.se; HR, Markus Helfrich, +49.2407.575-89447, Markus.Helfrich@eed.ericsson.se

#### System Test Plant Account Manager

#### Proj.No 195/E00

 As a System Test Plant (STP) Account Manager you will report directly to the department manager. You will be responsible for the tracking, follow-up, and status reporting for the largest cost center budget at EED.

You will need a good understanding of the distribution of EED STP's to our development, verification and support projects. Test or project support experience within EED project is desired. Proactive problem solving skills, good organization and communication skills and the ability to comprehend, formulate and follow up budgets and purchases is required.

Your tasks will be, to schedule the STP's to our ordering projects, host the HW Coordination Forum where STP customers (project&line) meet to review and align STP HW requirements. You will also prepare budget input for estimated STP hours to be invoiced, HW to be purchase and expenses incurred in the operation of the STP. Follow up and report monthly the status of the budget with respect to fixed asset purchases, expenses, STP use and invoiced STP hours - follow up and make visible the status of prototype STP hardware ordered through the development and verification projects for use in the EED STP's.

Contact: EED/S/OC, Charles D. Grinstead, +49 2407 575 341, eedcgr@eed.ericsson.se; HR, Markus Helfrich, +49.2407.575-89447, Markus.Helfrich@eed.ericsson.se.

MARKETING, SWEDEN

**ERICSSON RADIO SYSTEMS AB, KISTA** 

#### Strategic Marketing Manager

JOIN US IN OUR PASSION TO WIN !!!Join us and you will have the opportunity to work with products that are successful today and make up the base for the technology of tomorrow. Within our Product Unit we develop next generation's GSM and TDMA Base Stations enabling multimedia services and mobile internet based on the latest technology. Our base stations are today installed in over 80 countries worldwide with China, USA and England being our largest markets.

We combine a strong technical competence with a wide commercial knowledge. To achieve best possible result within the unit, we strive to work as a team benefiting from each other's competencies. Our ambition is to achieve the impossible, finding new and creative ways to reach excellent results. Last but not least, we are a team who enjoys sharing a few laughs with our colleagues!

• To meet the new demand of the expansive Telecom market, we are launching a series of new products. We therefore need to reinforce our team with persons having their background within marketing of tele- and datacommunication. One of our basic requirements is that you are driven by a passion to put the customers in focus. We also require you to have: University degree or similar. At least two years working experience. Good knowledge of spoken and written English.

#### Strategic Marketing Manager – Strategic Marketing Unit

At Strategic Marketing we are responsible for analysing the market situation and market trends, define market messages, make business cases, outline price strategies and price new products. Your main task will be to perform market analysis and business cases. To succeed with this you need to keep yourself continuously updated on the market situation and trends. Using this knowledge of the market in combination with good knowledge of our products, you will be able to perform business cases for new products and solutions. A special requirement for this position is that you have experience from either business cases or BSS/Radio.To be successful in this position you need to be talented in performing presentations. Other valuable skills are analytic ability and a sense of details. Previous experience from the telecom market is considered as merit.

Contact: Linda Widmark, +46 8 7641283, linda.widmark@era.ericsson.se. Application: Strategic Marketing Manager.

#### EDGE Product Marketing Manager – Product Marketing and

#### **Communication unit**

The Product Marketing and Communication unit is responsible for the launch and promotion of our products towards the local sales force and customers. This includes responsibility of new product launches as well as longer term marketing messages. A successful launch requires crisp and clear market messages communicated through various channels, i.e. events and trade fairs, the Intranet and Extranet, customer presentations, promotion material etc. As the customer interest of EDGE is growing dramatically, a major challenge right now is to successfully launch EDGE (Enhanced Data rates for Global Evolution).

You will be responsible for promoting the EDGE market message through various internal and external channels. You will also be assigned the launch responsibility towards several key customers. Included in the responsibility are customer presentations and workshops as well as technical and commercial sales support. A special requirement is that you have a good technical understanding of GSM and/or experience from mobile datacom solutions. The position requires frequent customer contacts, why you will need to be outgoing, independent and have good communication and presentation skills in order to convey the EDGE message effectively.

Contact: Per Lindberg, +46 70 9861797, per.a.lindberg@era.ericsson.se. Application: EDGE Product Marketing Manager

#### Product Marketing and Communication Manager – Product Marketing and Communication unit

The Product Marketing and Communication unit is responsible for the launch and promotion of our products towards the local sales force and customers. This includes responsibility of new product launches as well as longer term marketing messages. A successful launch requires crisp and clear market messages communicated through various channels, i.e. events and trade fairs, the Intranet and Extranet, customer presentations, promotion material etc. You will translate the technical functionality of our products into crystal clear, concise commercial arguments based on the customer's needs. Effective communication of these messages is also part of your responsibility. You will also be assigned the launch responsibility of one or several of our products/solutions, i.e. taking the product from the market introduction stages until the product/solution is completely accepted and understood by the market. As launch responsible you also need to give presentations towards our key customers

A special requirement is that you have good knowledge of the Ericsson Base Station System (that can be gained from more technically oriented positions) or experience from product marketing in a different area. The position requires co-ordination of different functions both within our Product Unit as well as between Market Units, why it is important that you are outgoing, independent and a driver with communication skills. It is also important that you have an ambition to understand the customers' situation, as the position includes customer contacts.

Contact: Per Lindberg, +46 709861797, per.a.lindberg@era.ericsson.se. Application: Product Marketing and Communic. Manager.

#### Strategic Price Manager – Strategic Marketing Unit

At Strategic Marketing we are responsible for analysing the market situation and market trends, define market messages, make business cases, outline price strategies and price new products. You will be a part of a small team responsible for pricing of radio base stations. To be profitable and keep our strong position in this highly competitive market, pricing is a major challenge.

Among others the team price new products, give price assistance to our global sales organisations, perform price and profitability analysis and outline price strategies. In your daily work you will have contacts with several organisations within Ericsson, ranging from Product Management to local sales companies around the world. A special requirement for this position is that you have experience from either BSS or Pricing (alternatively purchasing). Personal skills most valuable for this position are to have a good sense for business and to be a true team player. The ability to combine operative and strategic work is also a merit. If the above fits your profile and you want to face a major challenge within technical marketing and at same time like to have some fun while working, give us a call!

Contact: Linda Widmark, +46 8 7641283, linda.widmark@era.ericsson.se. Application: Strategic Price Manager, Ericsson Radio Systems AB, LRM/S Marika Munther, 164 80 STOCKHOLM, marika.munther@era.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, ÄLVSJÖ

#### Market Communications Manager

 Call Centre Solutions is looking for a dynamic Market Communications Manager to continue to develop and effectively communicate our overall image, and the Call Centre Solutions sales and marketing propositions. Through the Ericsson local companies as our channels to market, our customers are network operators and service providers, and our customer base is global. The role includes extending the awareness of our trade marked name Cenaxis, in order for it to be recognised as the name representing a world leading, total solutions portfolio to the network based call centre solutions market. It also encompasses responsibility for the development and production of sales support material for both internal and external use, and initiating sales potential through exhibitions, press, media and literature management. Interested?

Our vision is to be the world leading supplier of Open Service Architecture for the 3G networks. Product Unit SCSA, Within Internet Applications, is responsible to provide platforms, communication and mobility service solutions for both the fixed and the mobile network as well as for internet. Our 1300 employees are located in Holland, Canada, Sweden and Mexico and we are all facing an interesting and challenging shift in technology. Join us in the Mobile Internet Revolution!

Contact: Chris Graham-Fielding, +46 8 719 4288, chris.graham-fielding@era.ericsson.se. Application: Market Communications Manager. marielouise.rogsater@era.ericsson.se.

ERICSSON RADIO SYSTEMS AB, STOCKHOLM

#### **Marketing Team Leader**

• Team Leaders within Solution Centric Marketing & Role Centric Marketing. Are you a Marketeer and would you like to help Ericsson become the leading supplier of Mobile Internet? Within IAPP we are globally responsible for marketing the entire Ericsson Mobile Internet portfolio and are currently in search of several leaders to manage teams of 2-3 marketeers. You will be responsible for co-defining and then launching market solutions. You will construct communications plans, guide the sales organisations on how to sell the different Mobile Internet solutions and ensure that the tools they require are in place. You will seek direct initial customer contact whenever you need to validate your propositions and constantly seek advice from sales teams and from product units.

Specific deliverables include customer business cases, marketing plans & market messages, value propositions that reflect market trends & competition. You must be results focussed, have strong personal drive and be willing to travel. It is desirable that you have a good understanding of Internet / Mobile Internet. We would like you to be outgoing with very good communication & team playing skills. It is likely that you hold an MSC and / or an MBA and have at least 5 years experience in international business.If you find this opportunity interesting and you fit the profile then please consider sending your CV as soon as possible.

Contact: Jonathan Elliott, +44 37 462 5961. Application: Marketing Team Leader, KI/ERA/CB/M, cool.jobs@bct.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, KISTA

#### **Market Launch**

GSM and Internet are the greatest hits in the communication world today. We are a fast-growing organisation, Product Unit Mobile Enterprise, that is integrating these two into a new system concept based on Voice over IP. Our unit, Strategic Marketing, proactively supports the marketing and sales of GSM on the Net. We are responsible for pricing, business cases, market communication, sales tools etc for GSM on the Net. We are now looking for a new person in the team.

 You will: inform the markets on what, when and how to market and sell GSM on the Net. work with implementing a new process on how to introduce future releases of GSM on the Net on the market. Milestones in this process are product announcements and product launches. coordinate the activities necessary to make the market introductions of GSM on the Net successful. play a major role in the total project for GSM on the Net as the Marketing project manager.

The role will be combined with other tasks within the Strategic Marketing area. Depending on your interest and ambition, these tasks can be as varying as positioning, business intelligence, sales tools, etc. We expect you to have:a university degree in economics/marketing and some years of working experience in market introduction and/or project management. experience from the IT industry. interest in trying new ways of doing things. Join us and be a part of an organisation that will play a key role in shaping the future of systems integrating GSM and IP.

Contact: Bodil Josefsson, SG/MMC, +46 8 404 9359, bodil.josefsson@era.ericsson.se. Application: Market Launch ref no 00-17, Ericsson Radio Systems AB, SG/H Cecilia Jettel, 131 89 Nacka, jobs.gsmonthenet@era.ericsson.se.

#### **ERICSSON RADIO SYSTEMS AB, SUNDBYBERG**

The Customisation Unit focus on the creation of unique products for each customer, based on Ericssons standard products. We are now expanding and are looking for a Marketing Manager. As a Customisation Marketing Manager, you will be responsible for; the commercial parts of an offer and negotiating the customisation contract with the Key Account Manager. You will work in teams with Technical Managers and Project Managers in a global network. Business travel will be a part of your job. You will also be encouraged to develop your skills in the other responsibility areas within the unit. Your individual development is important for us.

#### Marketing Manager Customisations

• We are looking for a person with at least 3 years of product Marketing experience and preferable experience in the sales process from a Market Unit perspective. You have a Master of Science or Economics or a corresponding university degree. You are highly motivated by turning technical solutions into profitable business for Ericssons customers. Fluency in English is required. Further you have a strong drive to finalise started activities, you like to work in teams and you contribute to the unit with your social skills.

Our vision is to be the world leading supplier of Open Service Architecture for the 3G networks. Product Unit SCSA, Within Internet Applications, is responsible to provide platforms, communication and mobility service solutions for both the fixed and the mobile network as well as for internet. Our 1300 employees are located in Holland, Canada, Sweden and Mexico and we are all facing an interesting and challenging shift in technology. Join us in the Mobile Internet Revolution!

Contact: Jan Gårderyd, +46 8 757 18 68, jan.garderyd@era.ericsson.se, Karin Moström, Human Resources, +46 8 404 57 54,

karin.mostrom@era.ericsson.se. Application: Marketing Manager Customisations. marie-louise.rogsater@era.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, TELEFONPLAN

Division Global Services is fast becoming recognized as the face of service excellence for the new millennium. As one of six divisions of Ericsson, our role is to deliver exceptional customer service as an integral part of the Ericsson offering. We are now looking to expand in order to face the very exciting challenges ahead - and you could be a key element in our success. To find out more about this new force in service solutions please visit our website at: http://globalservices.ericsson.se

#### **Resource Office Manager**

• To secure human resources for delivery of sold services is the most challenging work today within Telecom Management and is the prime responsibility for the Resource Office at the Regional Office - Europe, Middle East & Africa.As the Resource Office Manager, you will be responsible for the unit operations on both strategical and operational level. You will manage and develop the managers for the Order Desk, Resource and Procurement Management functions. Together with your team, you will build up and develop the service supply units, secure preferred supplier list, ensure the unit ability of the resource allocation and provisioning - delivery of the required specialists to the Market Units and Project organisations.

We expect that your academic education and Ericsson managerial work experience has provided you with the solid platform in Resource, HR managment, Service Delivery and chage managment

## Do you want to work for a company which sees no limits for communication between people?

Division Global Services is fast becoming recognized as the face of service excellence for the new millennium. As one of six divisions of Ericsson, our role is to deliver exceptional customer service as an integral part of the Ericsson offering. We are now looking to expand in order to face the very exciting challenges abead – and you could be a key element in our success. To find out more about this new force in service solutions please visit our website at: <u>http://globalservices.ericsson.se</u>

Technology office within Division Global Services is responsible for drive and ensure the implementation of an efficient Time to Market process and to ensure that systems and solutions are supported in the offering of services.

#### Project Manager – Serviceability Management

Serviceability Management within the DGS Technology Office is expanding and we are now looking for 10 new collegues. Serviceability Management is responsible for the Services Total Projects for all major systems and related products or nodes within Ericsson.

The Services Brokers/Services Total Project Managers are assigned to ensure that services are deliverable when a product/system is ready for volume deliveries. The job implies very close co-operation with the DGS Services Business Lines, both the TTM organisation in Stockholm and the regional TTC organisations where resources will be built up.

We are looking for Project Managers for both major systems/solutions/platforms and individual products or nodes. In some cases, project managers will be dedicated to deployment issues.

In addition to your ability as a project manager, you should have:

• a knowledge of services issues

• an entrepreneurial spirit

• a can-do attitude, and

• the desire to lead change.

The job implies some travelling.

Our offices are currently at HF and Sundbyberg, but we will be co-located in Sundbyberg by the end of this year.

For further information, please contact: Stefan Flodberg, phone +46 8 719 68 46 stefan.flodberg@era.ericsson.se Peter Berg, phone +46 8 508 781 06 peter.berg@era.ericsson.se Helena Sandberg, phone +46 8 719 91 31 helena.sandberg@era.ericsson.se

#### Test Configuration Management

To the Solution lab team we are looking for a Test configuration Manager, who will be a part of the team responsible for our internal lab, which is supporting the projects within our organisation. We are working in the following areas: NGN; e.g. Engine, LMDS, ATM/IP and 3G, i.e. GPRS, UMTS and Applications e.g. IP backbone and Ipsec/IP-VPN.

Your responsibility will be to handle ordering and maintenance of our test equipment, plan availability of the labs, build test environment, improve and develop our TCM activity. We are looking for a person with technical background with experience in TCM and/or IP networks and mobile system.

For further information, please contact: Bengt Fröberg, phone +46 8 719 51 12 bengt.froberg@era.ericsson.se Helena Sandberg, phone +46 8 719 91 31 helena.sandberg@era.ericsson.se

#### Network Designers for GPRS solutions

To support the massive numbers of GPRS contracts/ tenders we are in the process of building up a competence center for GPRS solution. The office is located at Telefonplan and the main task is to support the Network Design Activity for the packet backbone for the initial GPRS solutions.

Competence requirements:

- Basic knowledge of packet data network design
- Basic IP competence
- · Basic radio network design
- Good communication skills ( in English)
- · Willingness to learn and teach

The work will include on the job training and a lot of education, some travelling ( to support MU's) and cooperation with many units.

For further information, please contact: Michela Falchi, phone +46 8 719 54 81 michela.falchi@era.ericsson.se Helena Sandberg, phone +46 8 719 91 31 helena.sandberg@era.ericsson.se

#### Project Manager – Competence Strategy

Competence strategy and knowledge transfer has become focused areas within Global Services. We have to support our customers' profitability by delivering service solutions with high quality and in right time. The key to be a successfull service provider supplying end-to-end solutions is to have competent and qualified staff. Technology Office is involved with service planning and developing competent resources for 3G and fixed datacom & IP solutions. We are now looking for two persons to our unit New Solutions and Services to work within the area competence strategy.

This job involves creating and implementing competence transfer models, and supporting MUs with competence gap analysis. You will be responsible for driving projects and assignments in close co-operation with other units, mostly within Global Services. New solutions and competencies, which are identified within projects driven by our technical consultants and experts, should be transferred using FOAs activities in conjunction with other service units and MUs. It is a big challenge to find a suitable knowledge transfer method for different technical solutions and that will be one aspect of this role.

We are looking for outgoing and independent individuals with good communication skills. For this job you will need experience from Project Management and to have a broad general knowledge of telecommunications with a specific interest in the mobile and Datacom & IP area. We presume that you have the ability to structure the work, are flexible and enterprising, and are focused on result. Knowledge about competence development is considered as an additional qualification.

For further information, please contact: Kai Sjögren, phone +46 8 719 14 85 kai.sjogren@era.ericsson.se Helena Sandberg, phone +46 8 719 91 31 helena.sandberg@era.ericsson.se

#### Strategic Product Managers for WCDMA, CDMA, DIA, and DMN

If you truly believe that services add value to our solutions, as a Strategic Product Manager you will be in the driving seat.

The Strategic Product Management unit will develop and manage a consolidated DGS roadmap, priority plan, forecast and assignments for TTM service development, supporting Business Division systems and solutions.

As SPM you will work closely together with the Business Divisions from an early stage in the TTM flow and onwards, enabling a proactive preparation and measurement of services and delivery capacity by the DGS Service Business Lines for Ericsson systems and solutions.

The ideal candidates have an Ericsson background in both services and TTM projects. We expect you to build up and maintain a contact network, be a teamand result-oriented initiator and have good self-motivation.

For further information, please contact: Michael Litherland, phone +46 8 719 68 14 michael.litherland@era.ericsson.se Helena Sandberg, phone +46 8 719 91 31 helena.sandberg@era.ericsson.se

Please, send your application to:

Ericsson Radio Systems AB HF/ERA/GH Eva-Marie Thelin 126 25 Stockholm Eva-marie.Thelin@era.ericsson.se



ERICSSON

Make yourself heard.

areas. It is essential that you are outgoing, excellent communicator, very business oriented, fluent in English and have a strong drive to succed!

Contact: Alisa Bornstein, +46 8 71 98777, alisa.bornstein@era.ericsson.se, Thomas Bastin, +46 8 719 8660, Thomas.Bastin@era.ericsson.se. Application: RESOURCE OFFICE MANAGER, Ericsson Radio Systems AB, HF/ERA/GH Eva-Marie Thelin, 126 25 Stockholm, Eva-Marie. Thelin@era.ericsson.se.

#### **ERICSSON RADIO SYSTEMS AB, SUNDBYBERG**

Wireless Broadband to the HomelMass-market services based on IP-networks will demand broadband access. Fixed wireless access will be a major competitive technology for the residential and small office/home office market! With your help we will be the world leader in the field of fixed Internet connection via radio.

#### Solution Manager

 You will be responsible for the overall customer solution. General Qualifications: At least three years experience with substantial achievements from relevant areas. You are a leading team player enjoying a dynamic international environment. Master degree within telecommunication- Master spoken and written English.

Contact: Tomas Svanfeldt, +46 8 7640655, tomas.svanfeldt@era.ericsson.se, Gunnar Bergqvist, +46 8 764 04 56, gunnar.bergqvist@era.ericsson.se. Application: Solution Manager, Ericsson Radio Systems AB, SG/ERA/K/HS, 164 80 STOCKHOLM

ERICSSON RADIO SYSTEMS AB, KISTA

#### Manager Sales Support, Terminals & Applications

• Join us to work with terminals and applications!SM/A is hosted at the marketing unit at BU GSM, TDMA, EDGE but is equally involved in business at BU PDC and UMTS. We are responsible to develop, maintain and control the relationship and business with third party suppliers of terminals and applications to ensure that high volumes of various terminals and different applications are available on the market at the time of launch of Ericsson's systems. Our activities are a complement to the work done at ECS and DIA. The Sales Support Unit has responsibility for Marketing and Sales towards existing and new customers on all markets. Our mission is to support infrastructure sales with verified terminals of different categories in order to get new business.

Our primary interfaces are the GAM/KAM/NAM teams and the marketing and sales teams at the Third Party Suppliers organisations. For applications our interfaces are the MAI center and the sales departments of DIA. We now need to recruit Sales Support Managers.As a Sales Support Manager you will be responsible for:RFI and RFQ input, negotiation support and implementation of Third party terminals and applications for GPRS, EDGE and UMTS. Being the principal interface for Third party terminals and applications towards the customers. You will also be the principal interface towards our Third party partners for marketing and sales issues. Spreading information and messages about 3party terminals and applications to the sales forces on a regular basis

We are looking for team oriented persons with good communication and presentation skills who understand how to do business. You have a high degree of flexibility and enjoy working in a fast moving environment. You have an eye for the total picture and preferably a previous experience in GSM or WCDMA marketing from ERA/ECS or a market Unit. We believe you have a master degree in business.

Contact: Johanna Thornberg, +46 8 585 325 80, johanna.thornberg@era.ericsson.se. Application: Manager Sales Support, Terminals & Applications, Ericsson Radio Systems AB, Ann-Britt Stillberger, KI/ERA/SM/H, ann-britt.stillberger@era.ericsson.se.

ERICSSON RADIO SYSTEMS AB, KISTA

#### **Project Manager, Events**

The Division Mobile Systems, DMS, is the market leader for mobile telephone systems. Our market is the World. We have a track record of successfully planning and executing major conferences, exhibitions and roadshows that is hard to beat. We are looking for two energetic and enthusiastic project managers to be members of our Events team! You will work with Exhibitions and Roadshows. The work spans from planning to executing exhibitions and roadshows for DMS. You will also act as a consultant to Market Units, and provide them with relevant DMS exhibit material and messages, and re-

143

inforcing use of the Ericsson corporate branding. You will coordinate and manage stand staffing and training and is expected to measure results against objectives for concrete evaluation of activities. As a project manager you will also coordinate with other divisions and the corporate functions.

The best candidate for this position will be able to work well in a team and at the same time take the initiative to get the best results for DMS. You have knowledge of the wireless communications industry and an established contact network and experience within Ericsson. You have strong interpersonal skills and the ability to contribute effectively in meetings. You have project management skills and are able to handle multiple projects and short deadlines. You have the desire to travel at least 15% of your working hours. In your capacity as an Ericsson representative you have a professional image. Fluency in English is required.

#### **Technical Presenter, Events**

• We are looking for an energetic and enthusiastic technical presenter to be member of our Events team! As a Technical Presenter you will work with Demo Tours promoting WCDMA. Your area of responsibility involves planning and executing pre-

sentations to customers and other target groups around the world. You will be a member of a highly professional team. In order to be successful in this profession you enjoy working in a team and at the same time take the initiative to get the best results for DMS. You have strong interpersonal and presentation skills.

You are accustomed to work in an international telecom/IT environment and have an established contact network and experience within ERA. You are prepared to travel at least 40% of your working hours. In your capacity as an Ericsson representative you have a professional image. You have a technical background and are fluent in English. Additional language skills are considered as a qualification.

Contact: Töger Åström, ERA/MG/OC, +46 8 404 5872, toger.astrom@era.ericsson.se. Application: Technical Presenter, Events, Ericsson Radio Systems AB, Ann-Britt Stillberger, annbritt.stillberger@era.ericsson.se.

#### **ERICSSON RADIO SYSTEMS AB, STOCKHOLM**

Business Unit Internet Application has the mission to make the Mobile Internet Revolution happen. The Solution Management Unit within the new Business Unit Ericsson Internet Applications (IAPP) develops generic business solutions in areas such as Mobile e-commerce, Personal communication, Mobile Portals, Personal Communication and Mobile Multimedia.

Our goal is to provide generic, end-to-end solutions to Mobile Operators and ISPs with short leadtimes and at low risk. In the generic solutions we pre-integrate Ericsson's products with products from strategic partners and combine those with consulting and integration services in order to secure that they can sold as customer solution fast and efficiently.

We are looking for three new team players to join our Solution Strategy unit. We at Solution Management are responsible for ESP, Business Plan and the IAPP Solution Portfolio from a strategic perspective. We co-ordinate the business requirements for solutions towards the solution area managers and other Product Units within IAPP. We also co-ordinate the Solution Innovations activities for new solution areas from a strategic perspective as well as the solution areas input and messages in the 3G offers. We have an open, creative atmosphere and can offer you the possibility to work with challenging tasks in a dynamic and prioritised area within Ericsson.

#### **Portfolio Management**

• One of the open positions will have a focus on co-ordination within the Solution Management, i.e. co-ordinate the Solution areas as well as the solution Innovation activities from a strategic perspective. We are looking for you who have several of the following aspects covered by your profile; good analytic skills, business minded, knowledge of GSM,GPRS and UMTS technologies, basic knowledge of Internet market and IAPP's product portfolio, structured, positive team attitude and self -motivated.

#### **3G Bid Management**

 The second person we are looking for will have focus on co-ordinate the solution offerings in the 3G offers. We believe you have several of the following aspects covered by your profile; good analytic skills, business minded, knowledge of GSM, GPRS and UMTS from a commercial perspective, structured and self-motivated, fluent in English - orally as well as in writing, good communication and presentation skills. Mobile Operator experiences are considered as an additional qualification. The third person we are looking for will focus on the solution areas input and messages in the 3G offers. We believe you are fluent in English, orally as well as in writing, good stylistic skill, business minded, knowledge about the Ericsson organisation and GSM,GPRS and UMTS, analytic, structured, positive team attitude and self-motivated. Have the ability to work with given dead-lines. Experiences from Bid Management are considered as an additional qualification.

Contact: Jan Arwald, +46 8 585 34402, Anna Runhellen, +46 8 757 3525. Application: Portfolio Management or 3G Bid Management. cool.jobs@bct.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, KISTA

#### **Business Development Mgr**

- North America
• As a Business Development Manager you will be responsible for identifying new business opportunities by working closely with sales teams and product units to secure new business opportunities on our North American market. Your main task is to analyse the market and operator situation with regards to mergers to identify new opportunities that may arise. Based on findings, develop a plan for how these customers shall be addressed by Ericsson and implement the strategy in North America. Another task is to develop the medium to long term stratgeic plan for Ericsson by working closely with internal units as well as extensive contacts with counterparts in North America as well as KAM

and EDGE to 3G including Mobile Internet Solutions etc. Travelling will be required. You have a master degree in engineering or business with experience from the wireless and/or datacom industry. You should be open minded with strong perseverance and drive, willing to share information and ideas. It is required that you have good communication skills leading to comprehensive and constructive presentations of complex problems and situations.

teams.Product areas to cover will be TDMA, GSM

Contact: Göran Finnman, ERA/SN, +46 70 648 1634. Application: Business Development Mgr -North America, Ericsson Radio Systems AB, KI/ERA/SF/H Ingrid Pichler, SE-164 80 Stockholm, ingrid.pichler@era.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, KISTA

The Price Management function within the new Business Unit GSM,EDGE, TDMA will be further strengthened and we are looking for business oriented Price Managers to join our team. Your key tasks will include price support in GSM/EDGE/TD-MA tenders, price monitoring and comparisons, profitability calculations and business argumentation to support price strategies. You will be in close co-operation with the Sales and Business Management organizations worldwide as well as Product Marketing functions.

#### **Pricing Manager**

• The right person should have a Master degree in engineering and/or business, and at least 2-3 years experience within the data/telecom industry. The candidate is expected to have a thorough understanding of GSM/EDGE/TDMA systems as well as migration into 3G and good understanding of operator's business situation. The position requires power of initiative, perseverance and goal-orientation as well as ability to work in a high pace environment.

We are working globally therefore fluency in English, both spoken and written, is required. Personal development and attractive career possibilities are key elements in our offer to You. The position is open for both local employment and international assignments.

Contact: Carsten Nielsen (acting), +46 8 75 75523, carsten.nielsen@era.ericsson.se. Application: Pricing Manager, Ericsson Radio Systems AB, KI/ERA/SF/H Ingrid Pichler, SE-16480 Stockholm, ingrid.pichler@era.ericsson.se.

**ERICSSON RADIO SYSTEMS AB, KISTA** 

#### Sales Strategy&Tactics Mgr – North America

• As a Sales Strategy & Tactics Manager you will be responsible for developing a common GSM, TDMA & EDGE commerical strategy working closely with sales teams and product/marketing units to ensure a coherent 3G message for the North American market. Your main task is to develop a commerical strategy and keep track of existing commitments made in current contracts. In addition to this also participate in defining the North American 3G sales & market strategy and perform commerical competitive analysis. Product areas to cover are GSM,TD-MA and Edge to 3G including Mobile Internet Solutions etc. Your interfaces will be Ericsson internal units in Sweden as well as the Market Area North America (USA and Canada). Travelling will be required.

You have a master degree in engineering or business with experience from the wireless and/or datacom industry. You should be open minded with strong perseverance and drive, willing to share information and ideas. It is required that you have good communication skills leading to comprehensive and constructive presentations of complex problems and situations.

Contact: Göran Finnman, ERA/SN, +46 70 648 1634. Application: Sales Strategy&Tactics Mgr-North America, Ericsson Radio Systems AB, KI/ERA/SF/H Ingrid Pichler, SE-164 80 Stockholm, ingrid.pichler@era.ericsson.se.

#### ERICSSON RADIO SYSTEMS AB, KISTA

#### **Senior Marketing managers**

GSM and Internet are the greatest hits in the communication world today. We are a newly built organization to integrate these two into a new system concept based on Voice over IP. We are now looking for experienced marketing managers ready to take the GSM over IP system to the market. As a marketing manager you will drive the market. As a marketing manager you will drive the marketing and sales process from customer analysis to contract signing, together with Ericsson's local organization. Your customers will initially be Mobile Operators and Internet Service Providers but will extend to Independent Distributors and Enterprises later on.

• You have a solid background as Account manager, Business manager or related commercial experience in telecom/IT. You have a good understanding of an operator business environment and preferably also from Enterprise communications. As a person you have excellent social skills, are openminded and enjoy working in an entrepreneurial organization. You are self-motivated and result-oriented. You speak and write English fluently. Join us and be a part of an organization that will play a key role in shaping the future of systems integrating GSM and IP.

Contact: Lars-Jöran Westling, +46 8 4047687, Larsjoran.Westling@era.ericsson.se. Application: Senior Marketing managers, ref no 00-15, Ericsson Radio Systems AB, NA/ERA/SG/H - Cecilia Jettel, SE-131 89 STOCKHOLM, jobs.gsmonthenet@era.ericsson.se.

obs.gsmonthenet@era.encsson.se.

#### ERICSSON RADIO SYSTEMS AB, KISTA

Business unit GSM, TDMA & EDGE is one of the fastest growing business units within Ericsson Radio Systems. We are the market leaders for wireless systems services based on the TDMA and GSM standards. Sales & Business Management Latin America is responsible for capturing new business in the Latin American region. The opportunities we pursue are Third Generation (3G) system solutions for Mobile Internet/ Wireless data and new licenses for TDMA and GSM in Latin America. Latin America is one the most fascinating regions in the world with history, interesting culture combined with a strong technology focus and a very strong growth in the telecommunication sector. We are in need of several new

#### **Senior Sales Managers**

As a Senior Sales Manager you will be responsible for providing sales and technical support and work closely with sales teams and product units to secure our business objectives for the Latin American Market, Your main task is to promote our TD-MA, GSM or EDGE Systems solutions by participating in customer meetings, giving presentations of our proposed solutions and customer value propositions and actively support tender preparations. Travelling will be required to a large extent.

You have a master's degree in engineering or business with 3-5 years sales and marketing experience from GSM Mobile Telephony Systems and/or Datacom industry.

You should be highly business oriented with strong perseverance and drive, willing to share information and ideas among colleagues. It is required that you have good communication skills leading to comprehensive and constructive presentations of complex problems and situations. You have to be fluent in English. Good knowledge in Spanish or Portugese is an advantage.

Contact: Måns Nordström, +46 8 404 76 74, Cristian Lintrup, +46 8 404 89 08. Application: Senior Sales Managers, Ericsson Radio Systems AB, KI/ERA/SF/H Ingrid Pichler, SE-164 80 Stockholm, ingrid.pichler@era.ericsson.se.

# Ericsson Taiwan welcomes you to join the exciting telecommunication market of Taiwan.



Taiwan continues to be one of the fastest growing markets in Asia Pacific. With a mobile user base approaching 10 million subscribers or 45% penetration, Taiwan will be one of the leading countries to enter into the next generation of broadband wireless access.

Ericsson Taiwan welcomes you to join the exciting telecommunication market of Taiwan. The FarEasTone (FET) customer account is one of three mobile accounts at Ericsson Taiwan and supports an island wide dualband GSM network. The customer

is part owned by AT&T and is one of the biggest network (2 million customers today) in Asia. Far EasTone's core network is entirely supplied by Ericsson, and includes MSCs, TSCs, BSCs, HLRs, As well, FET have successfully launched ISP, Portal, and WAP services to the market, and have implemented a GPRS test system, with a commercial GPRS system planned for this year. They are pursuing 3G and are today investigating and investing in wireless Internet applications, mobile positioning, e-commerce, and enterprise services such as GSM on the Net.

#### Network Engineer for the Mobile Core Network Job Description

With the wave of new applications that are being connected to the core network (e.g. WAP, GPRS, MPS), you will be responsible to calculate and communicate the impact to FET. While detailed network planning is generally not required, knowledge of network planning principles is necessary, as there are occasions when some network planning is required.

At times it is required to support Tenders/proposals that are being submitted to FET. Generally this is network impacts and dimensioning of the nodes/system being offered.

With FET looking at migration options for 3G, Ericsson is part of assisting them with the best way how to do this. So the role has developed into some sort of "an expert" regarding the core network, being able to guide FET in the right direction, especially with all the new services.

You have good interpersonal skills, as frequent communication with FET is necessary. English skills are necessary, and Mandarin Chinese is a very good plus. Ideally you will also have knowledge of Ericsson's core network products, and knowledge in datacom related areas (such as ATM, IP).

#### Contact

Ben Cheung, Chief Engineer, Network Engineering, +886 2 2746 1769,

E-mail: ben.cheung@ert.ericsson.se

Jonas Ericson, Network Quality and Performance Mgr, +886 931 385 063, E-mail: jonas.eriksson@ert.ericsson.se

#### **GSN Product Manager**

#### Job Description

As the GSN product manager, you will be responsible for the GPRS product management. The main tasks include product presentations, Marketing and Sales support, GPRS product dimensioning, strategy and solutions. You will work closely with our local business and project managers.

You should be proactive and take initiative on your own. Fluent speaking and writing in English is a must, and Mandarin Chinese is a plus. You should have at least 2-4 years of relevant experience in product management. You should ideally have extensive experience in the area of GSM with knowledge in SS, BSS, transmission, and datacom related areas including ATM and TCP/IP. A good knowledge of GPRS is an advantage.

#### Contact

Nihar Chand, Office: +886 2 2746 1669, Mobile: +886 931 162 539, E-mail: nihar.chand@ert.ericsson.se

#### Product Manager, Wireless Internat Application

#### Job Description

You will be part of BM Applications & Servers team to identify customer needs and potential opportunities and to be responsible for promoting and managing products and solutions in the area of wireless Internet applications. Examples of solutions we are working on now are the emode portal, WAP, Positioning applications, Mobile Epay, GSM on the Net, GSM Pro, iPulse, etc. You will enjoy and continue to build the close relationship with the customer of one of the world's biggest dualband (GSM900 and GSM1800) systems solely supplied by Ericsson. You will further on develop the business and product knowledge at both the customer and at Ericsson Taiwan.

#### Profile

You have at least 3 years of experience in telecommunications or datacom. GSM knowledge is preferred. You have at least 1 year of experience in relevant end-user applications within Ericsson. You have experience of customer relations in both pre- and post-sales. You are independent, self-motivated, analytical and business minded. You have excellent communication skills and English speaking and writing skills. Mandarin Chinese is a plus.

#### Contact

Ryan Chen, Director of BM Applications & Servers, Mobile: +886 916 261 798, ECN: 888 1798, E-mail: ryan.chen@ert.ericsson.se

#### **3G Product Manager**

As part of the Business Development unit in Ericsson Taiwan, your responsibilities will include managing and tracking the development of technologies leading up to 3G systems, including, GPRS, GSM on the Net, EDGE, WCDMA and CDMA2000. You will also provide all technical and marketing support related to 3G activities including standardization, bids and proposals in Taiwan. Your job will also entail giving presentations towards Ericsson and non-Ericsson accounts, government bodies and other institution on the merits of Ericsson 3G solutions.

You should ideally have extensive experience in the area of GSM or TDMA with knowledge in SS, BSS, transmission, and datacom related areas including ATM, GPRS and TCP/IP.

#### Contact

Young Lin, Sr. Director, Mobile: +886 930 887 037, E-mail: young.lin@ert.ericsson.se

#### Director, New Core Network

The person will be responsible for business development the following job area: To promote New Core Network in Taiwan

To build up product competence in ATM/IP, Transmission

Fixed Access and NMS system

The person should equip the following competence and experience: Solid experience in supporting KAM / NAM in New Core Network Solid experience in managerial position

Good understanding of Ericsson products and the competitor product offerings in New Core Network

Fluent in English (Knowledge of Mandarin will be a plus) Good interpersonal and presentation skills

Good team spirit, cultural awareness, be independent and pro-active.

#### Contact

Joseph Sun, Vice President, Business Development, +886-2-27461610, +886 936 095 900, E-mail: joseph.sun@ert.ericsson.se

#### WAC Manager

Ericsson Taiwan has recently launched an initiative to develop and promote the widespread use of Mobile Internet Application in Taiwan. The Wireless Application Center (WAC) will host all of Ericsson's local and global initiatives regarding the next generation range of services. A small test and verification laboratory has been set up, which consists of GATEs, IP routers, ATM switch, Wireless LAN and WAP system in WAC.

As the WAC Technical Manager you will be responsible for the overall technical issues including technical consultanting to the WAC members. You will lead a small team in problem-solving and project management with local application developer.

You should have at least 2-4 years of relevant experience in application development and project management with very strong communication skills and an open mind. Experience of working with Ericsson Development Zone is a plus. General knowledge of Ericsson products and strategic direction is required.

#### Contact

Kevin Shao, Sr. Manager, +886-2-27461749, +886-931 162 555 E-mail : kevin.shao@ert.ericsson.se

#### Engineer, CME20 System Support

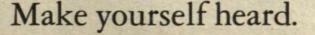
Taiwan is a fast growing market, where the operators are competing with new services. This put an extra effort on the support department, we have to gain the knowledge of new products at the same time as supporting the core AXE network. What we are looking for is an experienced CME20 troubleshooter, willingly to work both with AXE and newer products.

As a part of the network support group, you will work closely with the customers and support them with SW trouble shooting, both as an individual and as a team member. APZ/IOG recovery, trouble report handling and transfer of know-how to local engineers and customers are also part of the work.

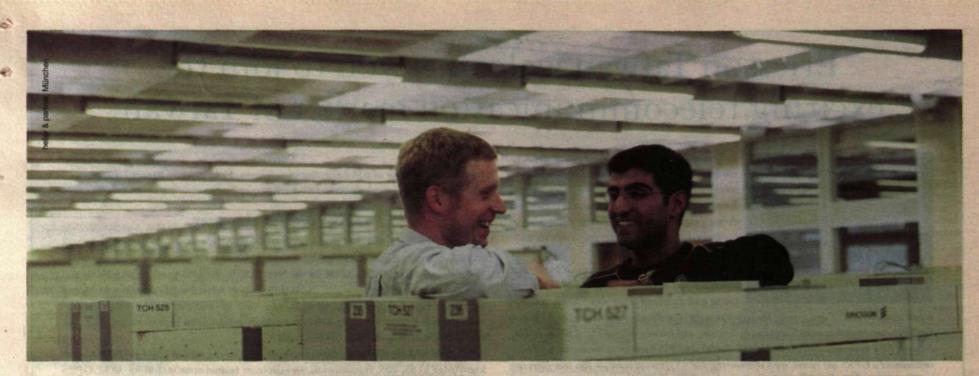
We would like to see that you have a good AXE knowledge and have at least 3 years AXE SW experience in CME20 SS, additional knowledge of CME20 BSC is seen as a big advantage. You have preferable worked in a support environment before with customer contacts. The position requires a good customer orientation, teamwork and good English knowledge.

#### Contact

Johan Asplund, +886-931 162 526, E-mail: johan.asplund@ert.ericsson.se







## Guido, Project Manager and Taner, GPRS Tester, having a chat in the mobile internet.

Ericsson Eurolab in Herzogenrath/Aachen, Germany, is a dynamic international Research & Development center, located in the heart of Western Europe. We are responsible for development and integration of 3G core network, including the management of international operations of Node Product Unit MSC and Core Product Unit Application Core (CAPC). This includes Product Management, Systems Management, Project Management and Performance Management (Processes, Methods, Tools and Quality). Close to 900 employees from more than 40 nations are working on all phases of the product life cycle, from Research and Systems Design to Supply and Third Level Support. And we are facing some further growth.

For further information about our open positions please visit our homepage: http://www.eed.ericsson.se

Please contact

4)

THY S

Ericsson Eurolab Deutschland GmbH Herzogenrath/Aachen, Germany Human Resources Christina Schneidawind Dial +49 2407 575 7814 eMail:

Christina.Schneidawind@eed.ericsson.se

#### System Designers & Senior System Designers, GSM and UMTS/3G

Your main tasks will be to carry out and coordinate system studies and other activities in the wide field of system management for GSM and UMTS projects. This will be in one or several of the following activity areas: Technical Studies for the Core Network & MSC; Characteristics & Dimensioning for Core Network & MSC; Core Network related Standardization; Operation & Maintenance; Hardware Platform Management and GSM/UMTS Product Market Support.

As we are looking forward to strengthen our system management organization significantly we offer challenging positions for very experienced designers with the ability to motivate others, take decisions and convince with a strong and balanced personality. Suitable candidates possess an engineering degree (e.g. telecommunications, electrical engineering or software engineering) with a minimum of 3 years experience in design, system level development or research. Good verbal and written communication skills, a high level of personal initiative and the ability to work autonomously are essential for these positions. Knowledge of mobile communications or IP & datacom networks is an advantage.

#### Software Design Engineers

We would like to strengthen our core competence in traffic handling and network architecture with external expertise. We are offering plenty of opportunities to learn and progress in a challenging and changing design development environment. You would be part of a fast moving team developing a new system, which migrates towards a successful future proof development product. A key product for Ericsson for it's market positioning.

For this reason we are looking for a number of experienced software design engineers who want to play a leading role in the evolution of Ericsson's AXE systems. You should have a minimum of 2 years experience in a design development area, be familiar with complete telecom systems, have programming experience in a number of different languages and SDL knowledge. A working knowledge of structural design methods is required for these positions. To be successful you need to have very good communication skills, quality orientated, innovative and a strong team player.

#### **GSM SS/UMTS System** and Network Testers

Testers are mainly responsible for test design and test execution needed to integrate and industrialize mobile telecom/datacom networks of the third generation. This involves node testing on AXE10, CELLO or JAMBALA platforms and GPRS nodes; network testing in a network containing C7, ATM and IP interfaces; trouble shooting, configuring and tuning the whole UMTS network. The test execution is mainly performed in target environment.

As a suitable candidate you have experience in software testing or design, preferably in the area of AXE10 based GSM systems; knowledge of Intelligent Network (platform, services or CAMEL), charging or #7 Signalling is a significant plus. In the UMTS world testers will need more and more datacom knowledge. So people with experience in TCP/IP or ATM networks, UNIX, Windows NT or other platforms; C/C++, Java or other higher programming languages are most welcome. In addition we expect good communication skills, openness, respect, initiative and reliability to work as an effective member in our project teams.

#### Product Managers/Program Manager for GSM, UMTS and 3G IP Evolution

Strategic product management for GSM, UMTS, Application Core and 3G IP Evolution is done in co-operation with local product managers, core network product managers and system experts. The focus is on the business and product aspects and our tasks include business planning, business cases, pricing, standardization strategies, product roadmap & plans, release responsibilities, product packaging, requirement coordination between different applications, statements of direction, meganetwork program, contract and tender support, and product presentations. We participate actively in formulation of the 3G and all IP Architecture core network contents with our key customers and partners in Ericsson.

The program manager has an overall responsibility for the planning of product, taking into account market requirements, business

aspects, technical trends and standardization strategies. The program manager also inter-works with the development projects in order to get the created plans implemented in consecutive releases. The strategic product managers are responsible for defining product solutions with the close co-operation to market. They also responsible for the planning the development of product management areas related to the product considering the profitability over the product life cycle. The tasks include defining product strategies, development of product information, customer presentations and tender and contract support. We look primarily for experienced product or system managers who have a solid technical and business understanding of mobile solutions offered by Ericsson.

#### Process, Methods, Tools and Quality Management

The general focus in these positions is to take the responsibility for processes, methods, tools and quality in the the projects. The main authorities and tasks are: supply the projects with suitable methods and processes to enhance the system and software design process, initiate the use of improved and/or new methods and processes, take process and quality measurements, plan and perform project/ process audits, monitor and evaluate methods and processes used in other organizations in order to identify potential process improvements, support the project office in all methods, process and quality related activities. Evaluation of new processes, methods and tools and initiating pilots are part of the role. You will coordinate the network with your counterparts in the various subprojects.

You have a background in management and/or project management in Ericsson operations and/or a strong background in software engineering. Also flexibility and willingness to change is a must. Background in managing improvement programs in development environments would be advantageous. Any previous experiences with methods, tools, processes, audits and project work is appreciated. Last but not least you should have a high interest in methods work and see this job as a challenge for you and the company. You will be able to set clear goals, define messages and strategies and see through the implementation of the strategic improvements.

#### Line Manager / Competence Manager

We are looking for enthusiastic and people oriented managers and colleagues, who will be responsible for 10 to 30 people. You must have excellent leadership, communication and (self-) management skills. You will take care of finding the optimal match between operations and business needs versus our people's competencies, wishes, ambitions and capabilities on the other side.

The main tasks and activities are: Resource planning, project resource contracts, participation in assignment board and management team, performance management and development talks, recruitment, salary review & setting, team coaching, career development and planning, keep a thorough overview and understanding of all operations. You need to have an understanding of the impacts of future technologies for strategic competence planning etc. You should have the combination of strong operational orientation and a interest in human beings.

#### **Project Manager**

In this positions you manage key projects for 2G and 3G wireless systems and partly also for wireline systems. The projects we run are in pre- and feasibility-study, implementation, verification, global supply&support and total projects. They encompass subprojects in different continents. We require specialization in telecommunications or datacom technology. Some years work experience in technical aspects of telecommunication and proven experience in project management are required. Good knowledge of PROPS, project planning, budgeting and management methods are a necessary base. Good knowledge of mobile telephone systems and Ericsson business practices would be an advantage. Resourceful, flexible, initiative, good communication, cooperation skills and a good ability to work under pressure are important personal qualities. Traveling is a natural part of the job. Fluency in written and spoken English is required. Furthermore you should have strong interest in people and be willing to develop as a leader. The main tasks are to lead a large telephone system project with full responsibility for fulfillment of Ericssons commitments to our customer.

