

During the summer, Kurt Hellström became the new president of Ericsson. He was most recently the head of the Asia Pacific business area. CEO Lars Ramqvist can be seen in the background. Photo: Pressens Bild

Stepping up the pace

A new Ericsson president was appointed on July 7. The news came as a surprise to many and the reaction was strong. Kurt Hellström is the new president of Ericsson. He has long experience of the company after many years as head of

Mobile Systems. Lars Ramqvist will, for a time, be both chairman and CEO. In this issue of Contact, you can read an interview with Kurt Hellström and Lars Ramqvist, as well as comments by Sven-Christer Nilsson. **4-5**

NEWS

Japan first with 3G

Japan will be the first country to have a system for the third generation of mobile telephone systems. However, it is not businessmen who are driving development, but young women. **13**

Lower profits for half-year

During the first half of the year, sales increased but profits declined. This is partly due to reduced margins in Consumer Products. North America has overtaken China as Ericsson's single largest market. **3,6**

London police outsource

The Metropolitan Police in London has signed a contract with Ericsson to outsource all of its telephone services. The agreement is a breakthrough for the Business Consulting business unit. **7**

Simplicity raises price

When investors look at companies, they want to understand what it is they are investing in. There is a major educational task for the telecom industry to make technology easier to understand. **10**

FROM THE PAST

In 1984, Ericsson manufactured a limited number of Diavox telephones in hardwood. **18**

BACK PAGE

A tough test for the new R 250s Pro model was the Endless Odyssey, a multi-sport race.

MIXED SIGNAL SOLUTIONS



THE ROUTE TO ASIC SUCCESS

STMicroelectronics offers optimum system-on-chip solutions with the latest technology and wide IPs portfolio. For more information call +46 8 587 74400 or see us on the web at <http://www.st.com>



THE PEOPLE WHO MAKE SYSTEMS ON SILICON WORK FOR YOU

The ST logo is a registered trademark of STMicroelectronics

Total RF Connector Solutions

High Performance

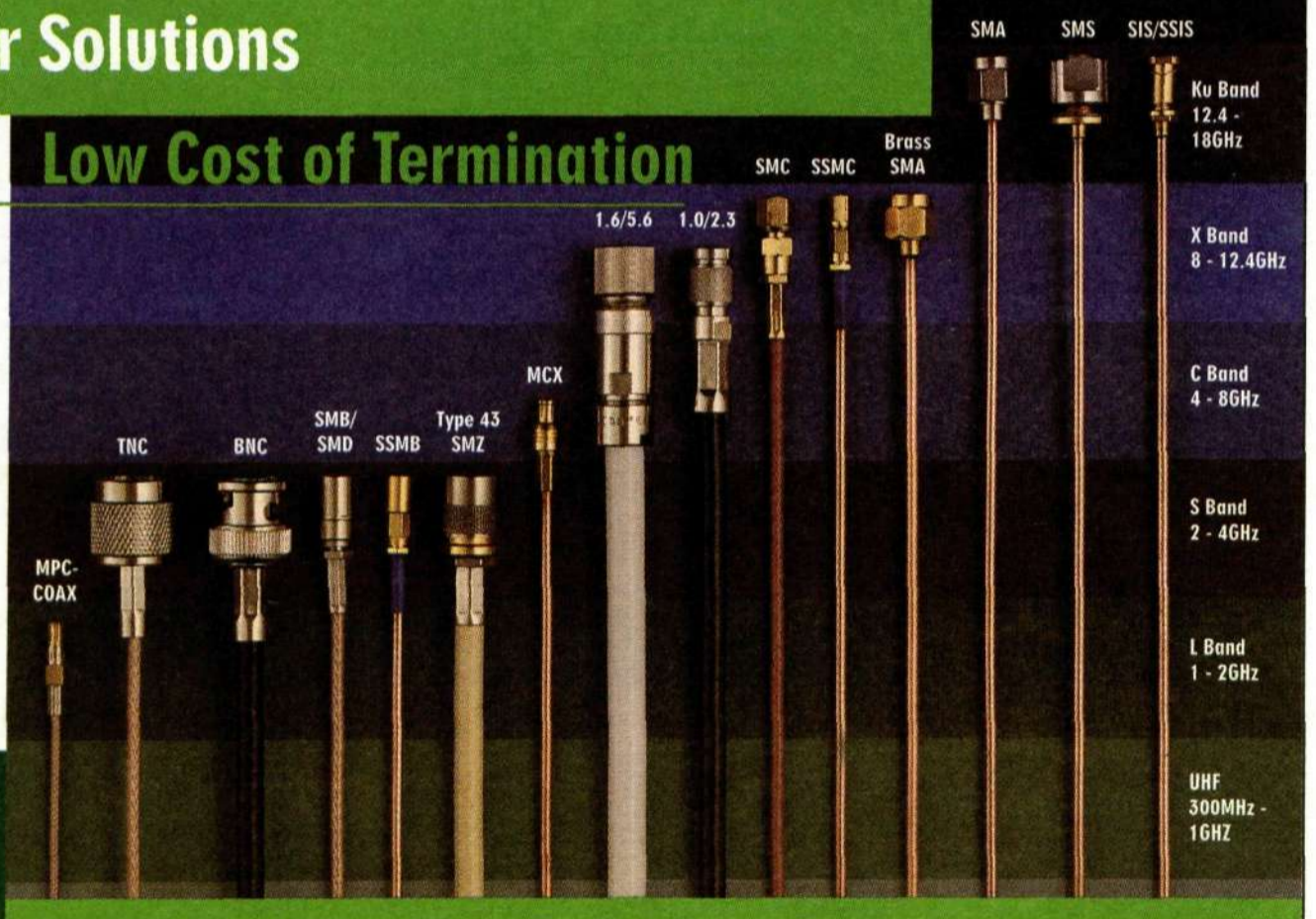
It may surprise you to know we've got the Communications market covered. Our range of RF coaxial connectors covers OEM equipment and installation requirements for telecom transmission as well as for handsets and basestations used in mobile communications.

Our products are designed to deliver higher performance with the lower cost of cable termination that your customers demand. We're also technically focused on surface mount connectors to offer you increased density on your pcbs and front panels.

- Wide range of RF connectors
- Telecom transmission and mobile telephone applications
- High performance
- Lower cost of termination
- High density surface mount

Now that you know our capability, you won't be surprised to hear that Ericsson divisions in the UK, Continental Europe and N America have recently designed-in some of our latest products. If you would like to know what we could do for you, please call us at one of the numbers opposite.

Low Cost of Termination



ITT Cannon
Norr Mälarstrand 64
Jaktvarvet 1, S 112 35 Stockholm
Sweden
Tel: +46-8-650 0071
Fax: +46-8-650 0072

ITT Industries, Cannon RF Products
Jays Close, Viabes Estate
Basingstoke, RG22 4BW
United Kingdom
Tel: +44 1256 311200
Fax: +44 1256 323356

ITT Industries, Cannon RF Products
585 East Main Street, New Britain CT 06051
USA
Tel: +1-203 223 2700
Fax: +1-203 225 2781

ITT Cannon (HK) Ltd
906 New World Office Building
West Wing, 20 Salisbury Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel: +852.2732.2720
Fax: +852.2732.2919

Cannon



ITT Industries
Engineered for life

Position strengthened in first half

In conjunction with the six-month report released at the end of July, CEO Lars Ramqvist and President Kurt Hellström reviewed Ericsson's strategic progress. The following is a summary of this statement. More information about the interim report is presented on page six.

Ericsson's objective is to secure a market-leading position in wireless Internet. The basic strategy is to combine Ericsson's industry leading position in wireless communications with a strong commitment to IP technologies.

During the first six months of 1999 Ericsson strengthened its leading position in next-generation networking. A number of strategic investments, key customer contracts and industry agreements have been made to further open the way for next-generation mobile systems.

Ericsson is now ideally positioned as the only supplier of all 2G digital technologies (GSM, TDMA, PDC, cdmaOne) including the future-oriented GPRS standard. Additionally, Ericsson holds a favorable position in all 3G technologies (WCDMA, CDMA2000, EDGE).

Ericsson is the only supplier capable of providing all of these technologies on an end-to-end basis, from infrastructure to handsets, anywhere in the world. This strategic capability, combined with an unrivalled market presence, helps to secure Ericsson's leading role in the future.

Installations in nine countries

Ericsson is leading the deployment of 3G systems in the marketplace as well. Ericsson has established 3G test systems in nine countries to help network operators develop 3G wireless services and to provide these customers and Ericsson with valuable hands-on experience. Ericsson has already been selected by NTT DoCoMo to supply WCDMA terminals and radio base stations in Japan. BellSouth chose Ericsson to upgrade their network in fourteen markets with TDMA systems ready to migrate to 3G and wireless Internet. Six GSM network operators have already selected Ericsson to upgrade their networks with GPRS technology for wireless Internet capabilities. Several more GSM network operators are currently evaluating Ericsson's GPRS technology for deployment into their networks.

With the acquisition of Qualcomm's infrastructure division, Ericsson has added narrow band CDMA technology to its wireless portfolio. Ericsson now offers wireless networks based on all major radio technologies. Ericsson also offers a clear migration path for all 2G systems to 3G capabilities. This strategic acquisition also enlarges Ericsson's addressable market by 25 percent or USD 10 billion.

Reduced development time

Ericsson is continuing its strategy of supplementing in-house product development with externally acquired know-how. With externally acquired technologies, Ericsson has the opportunity to further develop its market-leading solutions for carrier-class IP-based data-com networks while improving time to mar-

ket. The datacom product portfolio is now robust and very competitive.

More acquisitions

In pursuing the strategy approved by the Board, Ericsson has supplemented its technology through selected acquisitions. The following transactions were carried out during the reporting period:

Torrent Network Technologies, specializing in aggregation routers, became an Ericsson subsidiary in April. Concurrently, TouchWave, which focuses on IP-based PBX, was acquired. Telebit, a developer of IP router software was acquired in May. Acquisition of the Qualcomm infrastructure division was also completed in May. In the area of Enterprise Solution, MATEC S.A. was purchased in June.

An increase in interests in Juniper, a producer of backbone routers, and Mariposa, specialists in ATM service access, was completed during the first half of the year. Investments were also made in the Internet application company Oz.com, and Saraide, a developer of mobile data services for Internet applications, during the first six months.

The net negative impact of these acquisitions and investments on Ericsson's income during the first six months was around SEK 300 million.

Restructuring program

The industry is in the middle of a technology revolution, leading to totally new value chains and new ways of working. For Ericsson, this means that fewer man-hours are required to produce, install and maintain our products.

This shift in technology and competitive environment is currently affecting 15,000 employees through outsourcing, divestments, layoffs and job rotations. This should be seen as an ongoing process.

The restructuring program will now be implemented with stronger top management focus and greater force to ensure the realization of established plans. The time plan means that 8,800 employees will be affected during 1999 and around 6,000 in year 2000.

The net impact on the total number of employees may be less because of acquisitions and increases within business units where strong market demand or volume growth so requires. The costs for the restructuring program will be expensed as incurred and total SEK 3.5 billion. During 1999, costs amounting to SEK 2.5 billion will be charged. Estimated savings from the restructuring program amount to SEK 3.5 billion on an annual basis from year 2001 and onwards. Savings will start to appear in the fourth quarter and amount to approximately SEK 750 million during 1999.

Outlook

As we have said before, 1999 is a year of investment and preparation for the next phase of



The purchase of Qualcomm's infrastructure operations last spring enables Ericsson to offer a complete portfolio of second-generation mobile systems and also places Ericsson in a strong position to develop and market third-generation systems.

Photo: Lars Åström/Världsbilden

Ericsson's development. The first six months of 1999 was a difficult period. The result is in line with what had been indicated earlier. We are not, however, satisfied with the performance. For this reason and in view of present uncertainties we at this time give a somewhat more detailed outlook.

Ericsson has taken actions to implement the strategic plan in a more operational mode in order to secure realization of Ericsson's long-term objectives. For the full year, we expect development at least in line with earlier indications, which was a revenue growth of about 10 percent.

In 1999, the millennium issue is causing some uncertainties regarding our customers' investment and procurement patterns during the remainder of the year. There is, however, at this stage no clearly discernible trend. In addition there are uncertainties related to development in certain markets. Despite a stronger second half, we expect income before tax including restructuring charges to be lower than in 1998.

For 2000, although difficult to predict, Ericsson anticipates a strong improvement in performance. Ericsson anticipates an income before taxes better than in 1998. This is based on the following four assumptions: continued strong growth in mobile systems; positive contribution from the recently acquired units, especially the CDMA infrastructure operation; improved control of operating expenses and

working capital and that the restructuring program will provide a sound base for further growth and profitability, and that the new mobile phones portfolio will have a positive impact on company income.

Looking at the longer term, Ericsson is seeking a market-defining role for wireless Internet.

Wireless Internet

Wireless Internet with mobility is the growth opportunity in the industry. It is already in mobile phones and laptops. Wireless will be in all sorts of PDAs (Personal Digital Assistant) and other portable data devices. The future world of the Internet will not be PC oriented. Instead, it will be centered on mobile terminals.

It is not only the devices that are changing. The networks behind them are changing too. Being primarily a network infrastructure company, this is of strategic importance to us. Ericsson is well positioned to offer clear evolution paths for our customers to quickly transition to next-generation networks with wireless Internet capabilities. With these preconditions, Ericsson has a unique opportunity to improve revenue and profitability to remain the leading supplier in a mobile world.

Lars Ramqvist, Chairman and CEO
Kurt Hellström, President

Edited by Patrik Lindén

contact

Corporate editor

Lars-Göran Hedin, + 46 8-719 98 68
lars-goran.hedin@lme.ericsson.se

Senior editor

Patrik Lindén, + 46 8-719 18 01
patrik.linden@lme.ericsson.se

Editorial Staff

Thord Andersson, + 46 8-422 03 16
thord.andersson@ebc.ericsson.se

Lars Cederquist, + 46 8-757 05 72
lars.cederquist@era.ericsson.se

Publisher: Lars A. Stålborg, phone + 46 8-719 31 62, lars.stalberg@lme.ericsson.se

Ulrika Nybäck, + 46 8-719 34 91
ulrika.nyback@lme.ericsson.se

Nils Sundström, + 46 8-719 93 83
nils.sundstrom@lme.ericsson.se

Gunilla Tamm, + 46 8-757 20 38
gunilla.tamm@lme.ericsson.se

Lena Widegren, + 46 8-719 69 43
lena.widegren@lme.ericsson.se

Mia Widell, + 46 8-719 41 09
mia.widell@lme.ericsson.se

Address

Telefonaktiebolaget LM Ericsson,
HF/LME/I
SE-126 25 Stockholm
fax + 46 8-681 27 10
contact@lme.ericsson.se

Distribution

Solveig Sjölund, + 46 8-719 41 11
solveig.sjolund@lme.ericsson.se

Layout and web design

Paues Media, + 46 8-665 73 80

External advertising

Display AB, + 46 90-17 79 50

Internal advertising and vacancies

Suvi Nurmi, + 46 8-719 10 58
suvi.nurmi@lme.ericsson.se

Printed at

Nerikes Allehanda Tryck,
Örebro, 1999

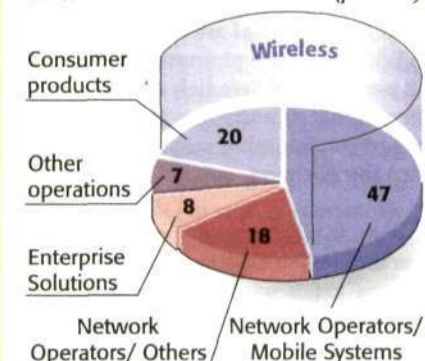
Contact on the web:

http://inside.ericsson.se
www.ericsson.se/Lib.shtml

DID YOU KNOW THAT...

Wireless dominates sales.

Sales by business segment during the first half of 1999. (percent)



New products important

Quickly improving operating income, getting new products out into the market and maintaining the successful work done in the systems area are the tasks which Kurt Hellström, Ericsson's new President, considers to be the most important for this autumn. At the same time, he emphasizes that the company is not in any sort of crisis.

The new company organization, which was decided on at the Ericsson Management Forum in San Diego last autumn, will not be changed, but restructuring needs to move along much more rapidly. Up until now there has been a lot of talk about it; now things need to be implemented.

The changes that now need to take place don't have to do with letting 15,000 people go, but rather changing operations by introducing new ways of working, among other measures. Of those who are affected, many will receive new work tasks which will require training in order to learn the necessary skills. Acquiring the skills needed for jobs in the new telecom world will cost money. Some operations will be outsourced and it's possible that others will be sold off. Nor has the possibility that some people will be forced to leave the company been ruled out.

"The need for cutback is not uncommon," says Kurt Hellström. "Even within a successful field such as mobile telephony we've been forced to make personnel reductions from time to time at plants, at two plants in Sweden, for example."

During the two weeks between the change of CEOs and the semi-annual report, Kurt Hellström spent time studying the company's operations. He says it was fairly easy to see where there are problems and in which areas measures need to be taken at once. There are certain unhealthy trends that need to be broken.

"Above all, we need to reduce our overhead and the amount of capital tied up, as well as improve our cash flow," he says.

Vital to launch new products

A very important task this autumn will be to get new products out into the market, especially mobile telephones.

"Now that we've developed the

products, they need to be marketed and sold so that we can reclaim the excellent position our mobile phones once had," says Kurt Hellström.

Focus on infrastructure

Hellström then moves to the subject of Ericsson's strong suit, mobile telephone systems. Positive developments continue and traffic in existing systems is now starting to grow rapidly, a development which bodes well for the future. And while the situation is very good for the new third-generation mobile telephone systems, opportunities for the second generation have improved with the introduction of IS 95. After having placed a strong focus on mobile telephones, the market is now starting to discover that Ericsson's strength is in infrastructure, a positive shift of focus according to Kurt Hellström.

The corporate executive team, consisting of 12 people, that was established in conjunction with the reorganization will remain. More than likely a new "inner group" will also be formed around CEO Lars Ramqvist, including Kurt Hellström and one other key individual.

Even though Kurt Hellström will be living in London, Ericsson's headquarters will remain in Stockholm.

"I'll have two workplaces, in both Stockholm and London, but will be spending a large portion of my time traveling. With that in mind, Lon-



Kurt Hellström is now taking over the helm at Ericsson. Prior to assuming the position of president he managed to spend a few summer days at his childhood home in northern Sweden.

Photo: Claes Törnheden/Västerbottenskuriren

don is a better base of operations than Stockholm," he explains.

Kurt Hellström feels at home in the organization that was formed just over six months ago. The impetus for the new organization came from the former Mobile Systems

business area, of which he was manager for nine years.

"I believe in a positive future for Ericsson and sense strong support for the work that I and all of my talented colleagues must do. The company has employees all over the

world and in order for us to succeed in the work we have ahead of us it's important that we all contribute," he concludes.

Gunilla Tamm

gunilla.tamm@lme.ericsson.se

With the company since 1984

Business opportunities and customer contacts are two concepts that are very important to Kurt Hellström and get his heart beating a little faster. He also believes that his own strengths lie in marketing and sales.

Although Kurt Hellström is a little-known figure to the outside media, he is well known to the employees at Ericsson Radio Systems and in the former Mobile Systems business area, both within Sweden and abroad. During his nine years as president and business area manager, Ericsson's mobile telephony operations have experienced great success.

He started working at Ericsson Radio Systems in May 1984 as a sales representative for mobile telephony in Asia, which at that time was a very small part of operations.

"The only country in the region where we had a

system in place was Malaysia, so those first years were spent hunting for customers," he recalls. Asia was not an unfamiliar market to Kurt, however. Already back in 1978 he had made his first business trip to Hong Kong, working at that time for Standard Radio.

In the spring of 1990, Kurt Hellström was named President of Ericsson Radio Systems and head of what was then the Radio Communications business area, replacing Lars Ramqvist, who had been named CEO.

In conjunction with Ericsson's reorganization last year, Kurt Hellström became Executive Vice President of the Asia and Oceania Market Area and moved to Hong Kong this past April. Now he is moving again, this time to London, but he will also maintain his workplace in the CEO's office at Ericsson's headquarters at Telefonplan in Stockholm.

Customers have always been important to Kurt and he enjoys having customer contact.

"Several of our major customers, such as Vodafone in the U.K. or McCaw in the U.S., became customers during those early years and it has been fun to maintain relationships over many years," he says.

A focus on the customer, along with speed and creativity, are key words for Ericsson's mobile telephony operations as well as for the entire company.

Kurt had planned on taking a really long vacation this summer for the first time, but that proved impossible. He did, however, find a few free days to pay a visit to his childhood hometown in northern Sweden, celebrate his mother's 80th birthday and be together with his family at their summer home in southern Sweden.

"Even without a long vacation, I feel that I'm in very good form to take on these new work responsibilities," he says.

Gunilla Tamm

Large headlines in newspapers

The news that Sven-Christer Nilsson had been fired aroused strong reactions among journalists and financial analysts. The Ericsson share plummeted by 8 percent and Swedish and international newspapers expressed considerable surprise about the decision.

The news received extensive coverage in the Swedish media, as well as in several major overseas newspapers. Media views were dominated by Sven-Christer Nilsson's surpris-

ingly hasty departure from his post. Nilsson's own comments about less than perfect 'personal chemistry' between himself and Lars Ramqvist attracted considerable attention.

The dismissal of Mr. Nilsson is far from being a solution to Ericsson's management problems, according to The Wall Street Journal Europe, which also referred to financial analysts who believed that Sven-Christer Nilsson had never gained the market's confidence and that his public appearances had been clumsy and hesitant.

The Financial Times believed that Nilsson had been abruptly dislodged from the CEO position after only 15 months. And that this was due to a lack of patience on the part of the Board of Directors regarding the internal restructuring programs' failure to move fast enough.

Another Financial Times journalist appeared to have expected Sven-Christer Nilsson's dismissal. The newspaper wrote that the Ericsson Board had finally stopped being patient about the slow pace of the cutbacks and also stated that Nilsson had

attempted to reuse Ramqvist's strategy from the beginning of the 1990s, which was easier said than done.

Bengt Carlsson, stock market chronicler at Swedish daily Dagens Nyheter, blames Lars Ramqvist for all of the collaboration problems between Sven-Christer Nilsson and Ramqvist. According to Carlsson, Ramqvist had neither coached his successor for, nor supported him sufficiently in, his new role. Moreover, Ericsson had previously permitted top executives to make major errors of judgment without being re-

placed. It would have been easier to understand the replacement if it had been the result of a few major disasters, Carlsson continues.

Finanstidningen, a Swedish financial daily, published an interview with Anders Elgemyr, senior analyst at Fischer Partner, who criticized the Ericsson Board. Lars Ramqvist has many good sides, but he is not a strategist and has no genuine interest in data-communications, says Elgemyr.

Lena Widegren

lena.widegren@lme.ericsson.se

Why did Ericsson's board of directors decide on a change of president? Contact put this question to the person best equipped to answer it – new CEO and board chairman Lars Ramqvist. The main reasons for the removal of Sven-Christer Nilsson were the lack of decisive action and firm leadership in a situation where these attributes were more crucially necessary than ever before.

"Firstly and most importantly, we must be more sensitive to our customers' needs and serve them better," explains Lars Ramqvist. "Ericsson has lost its momentum during the past 12 months. A year is a long time in the telecom sector and our competitors have used that time to advance their positions. And our customers have given clear indications that we have recently begun to fall behind in terms of our product range, delivery precision and quality.

"Secondly, we must conduct our internal operations far more efficiently," continues Lars Ramqvist. "During the first six months of this year, overheads increased twice as much as sales, at the same time as the balance sheet weakened. The working capital needed to cover inventories and receivables has increased, resulting in a strongly negative cash flow. It is obvious that we cannot continue in this way."

Exhaustive analysis

"The transition to the new organization must be accelerated, and every employee must have a clear picture of his or her area of responsibility and authority. The board recently learned that one consequence of the new organization has been a fourfold increase in the number of internal monthly financial statements, which now total no fewer than 6,000 per month.

"The new management must ensure that this reporting system is made manageable and that the necessary quality can be maintained."

The board's decision on a change of president followed an exhaustive analysis conducted together with Sven-Christer Nilsson and based on his reports and plans. The decision was based on purely commercial considerations and was made as soon as the relevant facts were known.

"Given Ericsson's present situation, the board simply wanted to install a more forceful and decisive president. The ability to make rapid decisions is crucial in our industry," emphasizes Lars Ramqvist.

Turned down job offer

"I would like to point out that although the board did not consider Sven-Christer to be the best president for Ericsson as a whole, he was offered a continuing appointment as head of one of the subsidiaries. But he declined this offer," notes Lars Ramqvist.

"I would also like to underscore that the board was in complete agreement with Sven-Christer regarding strategy and that we are grateful for his excellent efforts in this area.

"My task now is to give Kurt Hellström all the support he needs to rapidly complete the reorganization process and restore Ericsson to a level of profitability at least as good as that of 1998."

Higher demands

Ericsson's loss of momentum over the past 12 months has not been limited

Watchwords are speed and quality

to the development of new mobile telephone models. The major reorganization program presented by Sven-

Christer Nilsson in San Diego has taken time to implement, and this has drawn off resources from day-to-day work, while also diverting the focus to some extent away from Ericsson's customers.

The slowdown came at a time when customers were imposing increasingly demanding requirements in terms of speed and quality. Several of Ericsson's major customers have indicated that they expect to see an improvement in both delivery times and quality.

"We have a strong appreciation of the complexity of Ericsson's operations and understand that major reorganizations require time," emphasizes Lars Ramqvist. "And that is precisely why it is so vital to have a firmer and more resolute management.

"At the same time, we are aware that the special efforts that are now needed require everyone's involvement. All of us who work at Ericsson must play our part if we are to succeed in our ambition of assuming a leading position in the new telecoms world, as well as fulfilling our strategy of also taking the lead in the development of IP and ATM solutions for fixed and wireless networks."

Ongoing process

When Ericsson's six-month report was published, clearer information was provided about how a new impetus is to be given to the company's restructuring process. While the program is not new, it involves an acceleration of the turn-around. A considerable amount of momentum needs to be regained after the slowdown during the past year. The entire decade has been characterized by this transformation process, which has affected thousands of employees each year. Many have changed jobs and acquired new skills. Some parts of the company's operations have been outsourced and some companies have been divested. Finally – and always as a last resort – entire operations or parts of operations have been closed down. Similar measures can be expected during the next few years.

"Some 8,000 employees will be affected this year and about 6,000 next year," notes Lars Ramqvist. "But that does not mark the end of the restructuring process. The telecom world is

continuing to change at an ever-increasing pace, and Ericsson must keep up with the new developments.

This means that the process will continue and all employees must get used to the idea."

Why does Ericsson feel the need to reorganize its operations all the time when other companies, such as Cisco, do not seem to encounter the same problems? According to Lars Ramqvist, the answer lies in Ericsson's long industrial history. Ericsson was established to meet the needs that existed when fixed telephony was being developed and expanded. Today the world is demanding an entirely different range of products and solutions.

"Don't forget that ten years ago fixed telephony was Ericsson's main activity. Today, fixed public networks account for no more than 14 percent of sales. So far we have successfully adjusted to the change – which is why we have succeeded so well in mobile telephony. Ericsson's success in that area has been the key to the company's growth and profitability over the past few years.

"We also face major challenges in relation to many of our new competitors. We must compete against companies such as Cisco and Nokia, which do not bear the burden of a difficult industrial history in fixed telephony extending back many years, and do not have a huge production apparatus to reorganize.

"This explains why their key financial data, calculated per employee, are so much better than ours – or those of our traditional competitors."

Lars Ramqvist observes that other companies that more closely resemble Ericsson, such as Siemens, Alcatel, Lucent and Nortel, have also been forced to implement major structural changes.

"But they have done what was necessary by applying large nonrecurring write-downs. This has not been the approach adopted by Ericsson, where we have always charged restructuring costs against earnings on an ongoing basis."

Position of strength

However, Ericsson's roots in fixed and mobile telephony are far from being solely a burden, but are now also the source of the company's strength, believes Lars Ramqvist.

"No other company is as entitled as

we are to claim to be a complete system supplier for the twenty-first century. We are unmatched in our command of all mobile standards, and we are also among the leaders in 3G – third-generation mobile systems. Today we already have an extremely strong product portfolio for the future IP-based networks and services.

"The board supports the continuation of a strong long-term focus on research and development. This is an absolute prerequisite for maintaining and strengthening our leading position as a system supplier."

Broad front

The plan is for profitability to be restored to 1998 levels by next year. This was the promise made by Lars Ramqvist in the press conference following publication of Ericsson's six-month report. He and Kurt Hellström propose to implement a broad program of measures to achieve this end.

"Above all, we must strengthen customer confidence in us by being even more customer-focused and sensitive to customer needs, and by improving delivery times and quality. Internally, we must make every effort to drive down costs. This applies in particular to central costs, including Ericsson's IT support.

"We intend to bring the balance sheet back into line, improving cash flow by reducing inventories and receivables and increasing the capital turnover rate.

"In addition, we must increase the pace at which we develop new products and services. This applies in particular to mobile telephones, of course. We have decided to hold the next board meeting in Lund, specifically to give board members the chance to gain a clearer picture of how new models are developed. The board is anxious to ensure that we do not fall behind our competitors in terms of speed – meaning both time-to-market and time-to-customer," says Lars Ramqvist.

Fantastic potential

Ericsson is not a company in crisis. Lars Ramqvist emphasizes that what we are seeing at present – highlighted in the weak six-month report – is the result of a temporary downturn.

"Both I and the other board members remain convinced that Ericsson has fantastic potential. You only have to look at the collective expertise of the personnel and the fact that we have more than 40,000 employees under the age of 35, many of whom have expert knowledge of both the technological and the market requirements in the new wireless Internet world.

"And let us not forget that Ericsson is now the seventeenth most recognized brand name in the world! This bodes well for our consumer products.

"We shall become a leader in the new telecom world, but we have suffered a delay of 9-12 months in the process of achieving this aim. I am grateful that Kurt Hellström has taken on the task of recouping the time we have lost, and I intend to give him my full support in this endeavor.

"Moreover, I hope that all Ericsson employees will help and support Kurt as he faces this challenging task. Together we shall ensure that Ericsson is the best possible company for its employees, its customers and its shareholders."

Lars-Göran Hedén

lars-goran.heden@lme.ericsson.se

HELLO THERE!



Sven-Christer Nilsson

Sven-Christer Nilsson was forced to resign from his position as President and Chief Executive Officer of Ericsson on July 7 of this year. There has been much discussion and speculation in both the Swedish and international press, and many at Ericsson have wondered about the circumstances surrounding the situation.

Sven-Christer Nilsson has chosen to remain largely outside this debate, however.

"My speaking out to the media would not benefit Ericsson in any way. It's been a turbulent time and now Ericsson has to move on and establish a calm working environment. That will be easier if there is not endless speculation as to why I was fired," says Sven-Christer Nilsson to Contact. He indicates that there was a lack of chemistry between himself and Chairman of the Board Lars Ramqvist.

"In order to be able to do a good job in that kind of a position, there has to be open and unpretentious dialogue between the CEO and the Chairman of the Board. That has been missing, which has not made things easier," says Sven-Christer Nilsson.

When it comes to the future, Sven-Christer does not have any definite plans.

"But I believe that there are many good opportunities to find inspiring work in the future. That's something I've noticed in the time since I left Ericsson."

Sven-Christer Nilsson had worked at Ericsson since 1982.

"After such a long time at the company, I know it well and still have many friends at Ericsson. So of course I'll continue to monitor things and see how it goes for Ericsson in the future. Moreover, I'm still a shareholder in Ericsson," says Sven-Christer Nilsson.

Patrik Lindén

patrik.linden@lme.ericsson.se

Strong sales in the U.S.

On July 23, Ericsson's six month Interim Report was published. While net sales increased, earnings were down 44 percent.

The benefits of strong sales growth were offset by a drop in sales and profitability within Consumer Products, increased operating expenses for all segments, negative results associated with acquired units and investments made by Ericsson during the period. This resulted in a deteriorated financial net due to a negative cash flow.

Lower operating margin

Income before taxes was SEK 4.26 billion. The reduction in earnings from last year is due to a SEK 2.6 billion lower operating margin within Consumer Products, restructuring costs of SEK 600 million, SEK 300

million in negative results for acquired units and additional provisions of SEK 1.3 billion for market risks and customer financing.

Sales and margins

Ericsson's net sales in the first six months of 1999 increased by 12 percent to SEK 92.4 billion. Second quarter sales were strong, up 16 percent compared with the year-earlier period and 22 percent compared with the previous quarter. The largest business segment, Network Operators and Service Providers, increased sales by 22 percent to SEK 64.3 billion. Enterprise Solutions increased sales by 10 percent to SEK 8.3 billion, whereas sales for Consumer Products declined by 8 percent to SEK 20.1 billion.

Market areas

Sales in Europe, the Middle East and

BRAND NAME

In 1999, Ericsson was for the first time listed in "World's Most Valuable Brands", which is published once a year by Interbrand (www.interbrand.com). Ericsson finished 17th out of 60. This confirms that Ericsson is indeed benefiting from the activities to build a strong global brand.

Africa increased by 17 percent to almost SEK 49 billion. Strong developments were reported in Turkey, Spain, France, the Netherlands, Greece, Portugal and Ireland. Mobile systems sales were strong and increased by more than 60 percent.

Asia Pacific reported flat sales during the first six months of SEK 19.8 billion. Strong sales increases were reported in Japan and Taiwan, however.

Reductions in Asia

New business activity in China has slowed down significantly during the period compared to a very strong first six months in 1998. The situation in China is a result of regulatory uncertainties and restructuring affecting operators. Mobile subscriber growth, however, continues to be very strong in China with more than one million new subscribers per month.

Sales also decreased in Malaysia, the Philippines, Singapore and Thailand.

Strong growth

Latin America sales of SEK 12.2 billion were at the same level as last year. Sales were lower in Chile, Argentina and Venezuela. Brazil, however, showed very strong growth which, despite the devaluation, generated an increase of 20 percent when converted to SEK. Sales in Mexico were more than 30 percent higher than during the first six months of 1998.

Increased costs

North America had a very strong second quarter and sales for the six-month period were SEK 11.4 billion,

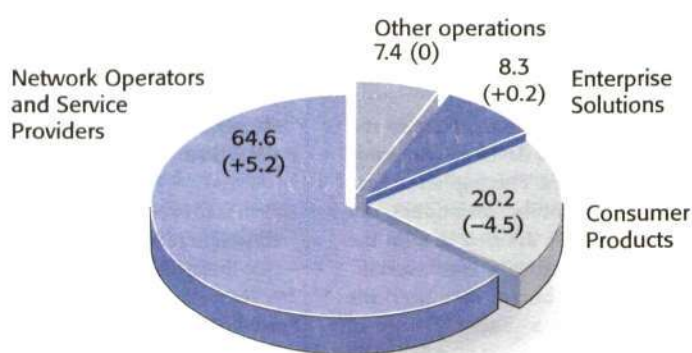


During the first six months of 1999, the U.S. overtook China to again become Ericsson's single largest market.

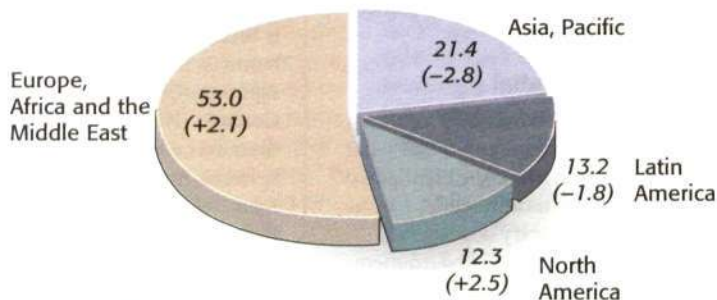
Photo: Lars Åström

SALES OF THE FIRST SIX MONTHS OF 1999

Percentage by business segment, without regard to internal sales. Change during the first six months of 1999 in parentheses. (percent)



Percentage by market area. Change during the first six months of 1999 in parentheses. (percent)



News graphic: Mikael Parment

up 41 percent on last year. Sales of mobile systems showed strong growth and new business continued to develop very favorably.

With a 49 percent increase in sales, the U.S. overtook China and again became Ericsson's largest geographical market.

Operating expenses increased by 25 percent compared with the first six months of 1998. Selling and administrative expenses increased by almost 30 percent, considerably

faster than the sales growth. The increase in operating expenses is mainly driven by costs for IT infrastructure, which is partly related to the process reengineering and installation of business support systems, as well as Y2K costs. Technical development expenses in new areas such as 3G mobile systems, datacom and mobile phones have also increased substantially.

The number of employees at the end of the period was 102,378.

Business segment interim reports

NETWORK OPERATORS/SERVICE PROVIDERS continues to show a very strong performance, especially regarding mobile systems. Operating margin improved substantially. The segment, which represents around two-thirds of Ericsson's total sales, increased by 22 percent to SEK 64.3 billion in the first six months of 1999.

MOBILE SYSTEMS sales increased by 43 percent and account for 72 percent of the segment's total sales. Ericsson anticipates a revenue growth for mobile systems of more than 30 percent for the full year.

After adjustment for provisions and acquisitions, the underlying development of operating margins continues to be very strong.

WIRELINE SYSTEMS has progressed well and reported a positive operating margin of SEK 113 million to date. A number of strategic con-

tracts for advanced datacom solutions were signed with customers in all market areas.

CONSUMER PRODUCTS reported a small operating margin of SEK 104 million. Sales decreased by SEK 1.8 billion. Unit volume, however, has developed according to plan, increasing by 31 percent to 13.9 million units during the first six months of 1999.

The shortfall in profitability is a consequence of delays in the availability of new products caused by technical and production problems. The new products will be available in the market in line with plans already announced. Product launches during 1999 will provide Ericsson with a totally new and broader mobile product portfolio. Some key products are the entry-level phone A1018 and the high-performance T28. The R380 smart phone and the Mobile Companion MC218 are advanced WAP and EPOC-based devices. There is a rapidly grow-

INTERIM REPORT IN BRIEF

Net sales	MSEK 92,383	+ 12 percent
Income before taxes	MSEK 4,258	- 44 percent
Income per share	SEK 1.74	- 35 percent

ing interest in mobile devices for 3G networks. Ericsson is making substantial development efforts to meet this emerging demand. Ericsson retained its position as one of the top three suppliers and new product launches during the year will strengthen this position.

ENTERPRISE SOLUTIONS reported a 10 percent increase in sales to SEK 8.3 billion. There was a negative operating margin of SEK 209 million, due to increased development expenses for new IP-based products and wireless technologies for the office. Managed Services (maintenance responsibility for communications solutions) showed a strong increase in sales during the period.

OTHER OPERATIONS (including energy systems, components, cables, and defense electronics) increased sales by 5 percent to SEK 6.9 billion. Operating margins were slightly reduced, however, mainly within defense electronics due to fewer deliveries in Sweden.

Intersegment sales consist primarily of energy systems, components and cables when sold as parts of system solutions. In some cases, mobile phones are also included in systems sales.

Kurt Hellström, President
Lars Ramqvist, Chairman & CEO

Edited by Patrik Lindén



Ericsson has been hired to manage the London police's telephone services. The deal is worth SEK 990 million.

Photo:
Paul McKay/
Pressens Bild

Ericsson to run London police phone system

Ericsson has signed a five-year contract with London's Metropolitan Police Service to operate and develop the London police's telephone system. This breakthrough contract for Ericsson in the field of outsourcing is worth SEK 990 million.

As fixed, mobile, voice and data solutions continue to converge in the new telecom world, an increasing number of companies are choosing to outsource operational and planning responsibility for their com-

munications solutions. In addition to the contract with the London police, Ericsson's Business Consulting business unit has signed some 40 different contracts in the past year and a half, totalling SEK 750 million, in this growing outsourcing market.

Strong position

"With our combined telecom and datacom expertise, we're in a strong position to help business customers find convergence solutions. We're expanding our outsourcing operations at a rate of 25-30 percent each

year and we currently have about a hundred potential new customers in twenty countries," says Kennet Rådne, head of the Business Consulting business unit.

The agreement with the London police means that Ericsson will both develop and operate the London police's fixed and mobile telephone systems. These currently include



Kennet Rådne

3,000 mobile phones, 6,000 pagers and 30,000 fixed telephone lines located in 265 different locations.

"The London police force is a major, exciting customer requiring a high standard of availability and reliability. Our five-year contract shows that the marketplace has confidence in our expertise in this field. It should also be viewed as a result of Ericsson's efforts within service sales," says Kennet Rådne.

Nils Sundström
nils.sundstrom@lme.ericsson.se

Significant strategic component

A whole new generation of routers are needed in order to build robust wireless IP networks. Ericsson's acquisition of 75 percent of the shares of the Danish router company Telebit is an important step in Ericsson's development of such solutions.

Telebit is one of the leading firms when it comes to routers based on both the current and the next generation Internet protocol, IP version 6 (IPv6). Over the next two years, Ericsson plans on investing USD 30 million in the Danish company, which is headquartered in Viby in Jutland.

Strategic investment

The investment is a strategic one, allowing Ericsson to capitalize on its leading position in wireless communications while becoming a leader within wireless IP networks. Mobile Internet solutions need to be optimized for the special requirements that wireless environments place on them.

"Telebit's software and its rich collection of protocols are especially appropriate in helping us quickly put new routers out into the market," says Johan Börje, marketing manager for routers in wireless networks at Ericsson Radio Systems.

Telebit's software will be used in a

number of Ericsson hardware platforms, such as Cello. The strategy is for Telebit to function as a software supplier when Ericsson builds the new real-time router, optimized for combined voice and data transmission across wireless IP networks. Telebit's products function both with today's Internet protocol, IPv4, and the new IPv6. That is an important factor for Internet operators who want to build future-proof networks offering IP-based wireless access.

Solves address problem

The need for a new generation of Internet protocols has been created by the increase in Internet traffic and new applications. It has,

TELEBIT'S PRODUCTS

By investing in Telebit, Ericsson also gains access to existing Telebit products, particularly PAXNET which is able to handle different packet-switching technologies, such as ATM, IP and Frame Relay, in a single product, making it appropriate for GPRS networks, for example. PAXNET is formed around two products: the "TBC2000 Integrated Multiprotocol Router and ATM Switch" and the "TBC1000 Access Router." In addition to supporting both IPv4 and IPv6, the products have advanced Quality of Service (QoS) and security features.

among other problems, become difficult to create IP addresses for all users.

"IPv6's scalability allows it to deal with the address issue better than today's Internet protocols. This is especially important in the development of mobile Internet services, where every mobile terminal needs to have its own IP address in order to always be connected and reachable," says Johan Börje.

It will also be easier to set up new wireless networks using IPv6. Everything that is connected to routers on the network can be automatically configured using the new protocols. At the same time, connections between one point and another on the network will become more secure.

IPv6 forum

This summer, Telebit took the initiative of starting an IPv6 forum which included companies such as Ericsson, Nokia, Motorola, Microsoft, Cisco and the English operator BT.

"The purpose is to increase interest in IPv6 and to give the market players an understanding of this protocol suite. IPv6 will be of great importance for the mobile sector and we'll be holding conferences and seminars about Quality of Service, security and other advantages of IPv6," says Telebit CEO Svend Möller Nielsen.

By investing in Telebit, Ericsson also gains access to existing Telebit products, including especially PAXNET which is a single product that can handle different packet switch technologies such as ATM, IP and Frame Relay, and is therefore well suited for GPRS network applications, for example. PAXNET is based on two products, the "TBC2000 Integrated Multiprotocol Router and ATM Switch" and the "TBC1000 Access Router". In addition to supporting both IPv4 and IPv6, the products have advanced Quality of Service (QoS) and security features.

Some of Telebit's customers include NTT, Tele Danmark, France Telecom and Telecom Italia. Telebit has also supplied a number of research networks and equipment to a large number of EU projects.

"We're very happy with Ericsson's investment. It means that we'll gain access to new technologies and sales channels on a global level," says Svend Möller Nielsen.

Nils Sundström

© www.tbitek

IN BRIEF

Financial news on cell phones

► Ericsson is teaming up with the Reuters news agency to send financial news and data to mobile phones equipped with WAP functionality, as well as to other hand-held terminals, using Internet solutions.

The project is the first step in a developmental program that will provide advanced datacom services to the financial sector. To start with, the project will cover one thousand users in London, Frankfurt and other financial centers. Users will be able to conduct transactions online and have interactive access to data and news, among other features.

These services will be made available to people using Ericsson's MC218 hand-held computer as well as the new intelligent R380 mobile phone.

Wireless demo center in the U.S.

► Ericsson in the U.S. has opened a demo center for wireless Internet at its main office in Richardson, Texas. The reason for doing so is to develop new applications for third-generation mobile telephone systems. Ericsson will be working with network operators and service providers at the new Wireless Applications Validation Environment Laboratory (Wavelab) to develop wireless Internet applications. Visitors to the center will also be able to communicate with a demo bus in order to test the possibilities of the new third-generation mobile telephone systems.

The first project demonstrates the TDMA-based Edge technology, which offers data transmission speeds of up to 384 kilobits per second.

Dutch Internet contract

► Wish, the fastest-growing Internet operator in the Netherlands, has selected Ericsson to be the supplier for expanding its Internet access infrastructure. The contract is worth SEK 100 million. Ericsson will be supplying a robust complete solution based on the Tigris AXC access router. The scalable access platform supports real-time multimedia services among other applications. During the first phase of expansion, scheduled for later this year, more than 300,000 new users are expected to be connected to Wish.

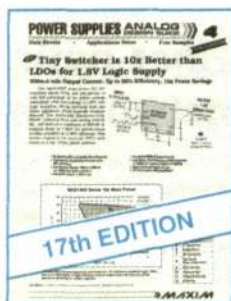
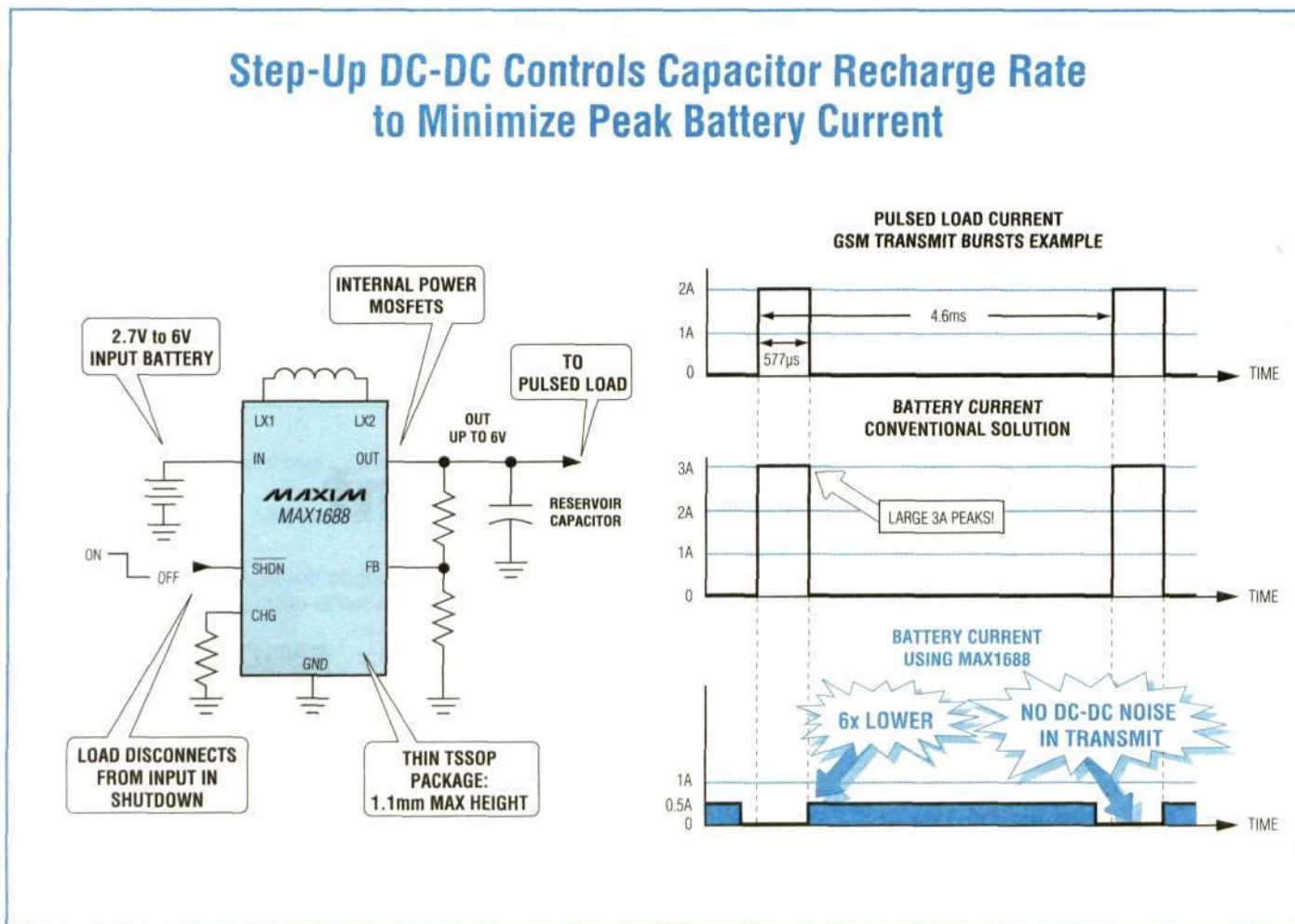
Fiber-optic network for AOL

► The world's leading Internet operator, America Online, has selected ERION, Ericsson's solution for fiber-optic networks to increase the capacity and reliability of its current infrastructure. By installing a 140-kilometer long DWDM ring (Dense Wavelength Division Multiplexing) in the Washington D.C. area, capacity can be significantly expanded. The technique creates numerous channels within the same fiber-optic cable by utilizing different wavelengths of light. The system also provides fiber-optic network operators with a unique security feature through so-called self-healing optical WDM rings. If a fiber-optic cable is cut, the information almost instantly finds an alternative route to its destination.

REDUCE GSM BATTERY CURRENT PEAKS BY 6x

DC-DCs Generate 5V, 2A RF PA Transmit-Burst Output with 90% Efficiency

The MAX1687/MAX1688 step-up DC-DC converters use six-times less peak current than conventional solutions, improving battery life by preventing battery voltage droop and glitches in GSM cell phones and wireless LANs. These converters control the recharge rate of the large reservoir capacitor, which provides the high-current burst needed when the RF power amplifier is turned on to transmit. The recharge is spread over the GSM cycle, so peak currents are minimized. Also, the DC-DC converter turns off during the transmit burst, isolating the battery from load transients and the transmitter from DC-DC switching noise.



FREE Power Supply Design Guide—Sent Within 24 Hours!
Includes: Data Sheets and Cards for Free Samples

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

MAXIM
www.maxim-ic.com

1999 EDITION!
FREE FULL-LINE DATA CATALOG
ON CD-ROM



Distributed by Arrow, CAM RPC, Digi-Key, Elmo, Marshall, Nu Horizons, and Zeus. Distributed in Canada by Arrow, and Marshall.

Austria: Maxim GmbH (Deutschland); **Belgium:** Master Chips; **Czech Republic:** Spezial-Electronic KG; **Denmark:** Arrow Denmark A/S; **Finland:** Acte NC Finland Oy/BC Electronics; **France:** Maxim France, Distributors: Maxim Distribution, Dimacel Composants; **Germany:** Maxim GmbH, Distributors: Maxim Distribution, Spezial Electronic GmbH; **Ireland:** FMG Electronics; **Italy:** Maxim Italy, Distributor: Esco Italiana S.p.A.; **Netherlands:** Koning En Hartman; **Norway:** Acte Norway AS/BC Electronics; **Poland:** SE Spezial Electronic Spolka Z.O.O.; **Portugal:** ADM Electronics, S.A.; **Russia:** Spezial-Electronic KG; **Spain:** Maxim Distribución, ADM Electronics S.A.; **Sweden:** Maxim Sweden, Egevo AB; **Switzerland:** Laser & Electronics AG; **Turkey:** Inter Elektronik A.S.; **U.K.:** Maxim Integrated Products (U.K.), Ltd., Distributors: Maxim Distribution (U.K.), Ltd., 2001 Electronic Components, Eurodis HB Electronics; **Ukraine:** Spezial-Electronic KG.

Erieye for Greece

Ericsson Microwave in Mölndal, Sweden, wrapped up the Greek order for Erieye when a contract for four aircraft radar systems to monitor the Greek archipelago was signed on July 1. The order is worth more than SEK 4 billion.

"Thomson and Ericsson are jointly offering the customer a real high-tech system for the Brazilian Embraer 145 jet aircraft," Lars Törnquist of Ericsson Microwave says. "The selection of Erieye by a NATO country is good news for Ericsson, since it encourages other customers to go ahead with us."

Responsibility for the order has now been placed in the hands of a joint company formed by Ericsson with Thomson CSE. Thomson, Ericsson Microwave and Embraer will be subcontractors to the new joint company.

Ericsson Microwave will be re-



sponsible for the command system, further development of the radar equipment, planning and follow-up systems, and a training station.

Delivery of the complete system is scheduled to take place in 2002.

Britt-Marie Wihdén

The Greek armed forces have, in a SEK 4 billion deal, purchased four Erieye systems, with an option for an additional two systems.

IN BRIEF

GPRS installed at T-mobil

► Ericsson is the first company in the world to deliver GPRS packet data technology to a GSM operator, Germany's T-mobil.

The equipment is now being tested in Bonn.

In January, Ericsson and T-mobil signed the world's first GPRS contract. The technology, which allows data transmission speeds of up to 115 kilobits per second, opens up a whole host of wireless Internet services.

T-mobil plans to offer its mobile telephone customers the new services next year.

Ericsson and T-mobil are also planning to jointly test and develop the market for other new technologies such as Bluetooth and WAP.

Recently, the Finnish operator Sonera chose Ericsson's GPRS system to offer packet data in its GSM network. The network upgrade should be ready next year. Ericsson has signed six GPRS contracts to date.

GSM Pro contract to South Africa

► South African operator MTN is scheduled to become the first in the world to implement Ericsson's GSM Pro in a GSM network. The contract, which includes both network equipment and mobile telephones, is worth SEK 210 million.

GSM Pro enables also GSM networks to benefit from the special functions of mobile radio, such as group calling and alarms.

Potential users include trucking companies, construction firms, tradesmen and security companies, who avoid having to establish their own private radio networks.

MTN's customers will be using Ericsson's robust R250 Pro mobile phone, which can handle vibrations, dust and water. Moreover, the telephone has a number of special features, including a rapid call button on the side that makes it possible to call even while wearing heavy gloves.

Industry prize for new IP switch

► Ericsson's IP-based WebSwitch 2000 was awarded the Best in Show prize at the CTI Expo Spring industry trade show in Washington D.C.

The WebSwitch 2000 business switch was developed by Ericsson WebCom, the new name of the Silicon Valley based company TouchWave that Ericsson acquired last spring. The product will be released in the American market later this year.

Large contract with Japan

► Ericsson has signed an agreement with three Japanese operators for expansion of their PDC networks.

The contract extends over the next three years and is worth USD 200 million.

The three regional operators – DTQ, DTD and DTH – currently have more than one million users, and are expanding by 30,000 subscribers a month.

Ericsson is the only non-Japanese company to win a contract for the entire PDC system in Japan.

Ericsson to extend networks in Argentina

Two Argentinean operators, Telecom and Telefónica, have purchased TDMA networks from Ericsson. The order is worth USD 400 million, and the networks are scheduled to go into operation within a year.

The two operators concerned, Telecom and Telefónica, have recently been granted permits for the 1900 MHz band, and are expanding to cover the entire country. Both operators currently use 800 MHz band TDMA networks supplied by Ericsson. Telecom is based in northern

Argentina, and Telefónica in the south.

"Ericsson's TDMA solutions enable Telefónica and Telecom to establish a strong basis for future services, including wireless Internet," says Bengt Bergvall, who is in charge of Ericsson's operations in Argentina. "In addition, TDMA is a robust network, providing high capacity for current users."

Eight percent of Argentina's 35 million inhabitants have mobile phones, and there are five cellular operators. Three of them are supplied by Ericsson.

Ericsson's TDMA solution permits Telecom and Telefónica to lay the foundations for the services of the future.

Foto: Lars Åström



COLUMN

Are customers set for year 2000?

Do you know what your customers will be doing in the autumn? There are three guiding principles in Ericsson's preparations for the millennium shift. We must do everything possible to ensure that our customers are satisfied with our services, we must secure our own operations, and we must safeguard our share price.

Several wide-ranging programs have been initiated throughout the company to ensure that these objectives are achieved, and they are monitored and followed up at corporate level. The millennium shift provides a unique opportunity to show our customers that Ericsson is a safe and reliable partner.

WE KNOW THAT customers have two main requirements. One is that the products and systems which we install continue to work in the next millennium. This target has been largely accomplished already. The other requirement is smooth operation of the order/supply chain, without delays and other problems.

This means that we now have to focus on the entire order/supply chain for products – from sales, tendering and order processing to produc-

tion and distribution. This also applies to installation and implementation. As we know, distribution may present a problem due to breakdowns and delays as we enter the new millennium – in air freight services, for example. But this is actually a minor problem, since the risk of delay can be minimized by advance planning.

A MORE SERIOUS PROBLEM is that we are not yet certain how our customers will behave during the autumn. Will purchasing behavior be normal? We know that the influx of new subscribers in telecom and data communication is still high. We also know that connection times are increasing as a result of the substantial growth in data and IP communications. This means that operators need to expand their capacity. At Ericsson, we will be adopting a cautious approach to the installation of new systems and applications after October 1, in order to avoid the risk of incurring new millennium problems. We know that many of our customers have exactly the same attitude.

Some customers may therefore decide not to make any changes whatsoever during the autumn, while other customers may decide to ex-

pand or modify their existing systems and capacity. But we do not know whether they will wait until after the New Year or whether they will purchase new products during the autumn. An alternative scenario is also feasible: customers buy more than usual to enable them to be in the forefront by substantially increasing their capacity prior to the New Year. All the available communications equipment will be in use at the turn of the century – there will be an enormous demand for services on New Year's Eve.

WE CANNOT PREDICT customer behavior during the autumn, at the moment. This means that it is essential to talk to our customers. In the case of products and upgrades, programs covering the action that needs to be taken are already under way, in cooperation with our customers. It is of the utmost importance, in this context, that we also discuss customers' needs during the autumn, prior to the millennium shift.

Björn Boström is Senior Vice President, with corporate responsibility for supply and IT issues.



Björn Boström

INDUSTRY NEWS

Microsoft targets mobile telephony

► Software manufacturer Microsoft continues to strengthen its position in mobile communications. The company recently bought shares in three North American mobile operators.

Most recently, Microsoft invested in the Rogers Communications cable company, owned by mobile operator Rogers Cantel. The company has also entered into a partnership with AT&T to develop third-generation mobile-data services based on Microsoft's Windows CE operating system. Earlier, last spring, Microsoft had already purchased shares in the Nextel mobile operator. These purchases have afforded Microsoft strategic relationships with the two largest TDMA mobile operators in North America.



Photo: Katie Ayres/Pressens Bild

Faster pizza with new network

► Domino's Pizza is cooperating with Nortel Networks to build a local high-speed data network. The pizza chain hopes the new data network will bring major improvements in the day-to-day operation of its pizza outlets.

All sales and service data will be transferred to a central database and analyzed daily to improve service to customers, for example by coming to grips with late deliveries. The new communications system is also expected to give Domino's better control over its 6,100 U.S. outlets, and 64 in other countries.

Telecom Asia in Hong Kong

► China is to host the Telecom Asia 2000 trade show, which will be organized by the International Telecommunications Union (ITU).

The show will take place from December 4 to 9 next year in Hong Kong, in the brand-new Hong Kong Convention and Exhibition Centre.

Internet forum unites the industry

► A new forum has been established to support the next Internet generation, IPv6 (Internet Protocol, version 6). Its members include 41 of the world's top companies and institutions, among them Ericsson, 3Com, Cisco, MCI WorldCom and Microsoft. The forum will cooperate closely with the Internet Engineering Task Force (IETF).

Explain technology to boost stock prices

Why are Internet companies' share prices rocketing despite negative results, while mobile phone companies – with their fantastic profits – are increasing relatively slowly in value? One explanation may be that mobile phone technology is too complicated for American investors.

One of the most successful investors in the world, Warren E. Buffett, who also happens to be the second richest man in the U.S., says that he likes "simple businesses," and that "if there's lots of technology, we won't understand it."

"I am intrigued by the communications industry, but then I'm not a typical investor," says Staffan Knafve, chief strategist for Carnegie Asset Management in Sweden. Staffan Knafve believes that there is a large spectrum of investors who simply never touch the communications industry because they don't understand it.

"And yet investors need the IT industry in their eternal quest for the growth opportunities it represents. Typical investors don't need to see high growth, but want to see clear trends that they can understand, coupled with sustainable, consistent and predictable growth," says Knafve.

Driving megatrends

The belief is pretty common that trading plays an important role in global financial markets, but couldn't exist without truly global megatrends. So, what are these trends?

"Today's driving megatrend from an investor's perspective is primarily peoples' fear of ending up in the poor house due to inadequate pension systems. Incentives to put away money for retirement have brought about an enormous net inflow of funds to the financial markets during the last decade. This inflow has been heavily weighted in favor of stocks, causing equity prices to soar and trading to increase dramatically in the 1990s. This driving trend won't last forever though," says Staffan Knafve.

What will drive global financial markets then?

"Most investors are not early adopters. Since they have a problem assessing the future, they shun IT in favor of lower growth. They go for stable trends, a proven track record, a good and steady trajectory with a minimum of perceived risk," says Knafve.



Staffan Knafve is chief strategist with Carnegie Asset Management. He believes that investors do not always understand complicated technology, and prefer to invest in areas they do understand. Companies like Ericsson have a pedagogical duty to make their technology more easily understandable.

Photo: Mymmel Blomberg

So what are the trends that investors perceive in the communication industry?

"The market anticipates a continued high growth in the number of mobile subscribers as well as in the number of Internet users. It also expects high sustainable growth in mobile infrastructures, datacom equipment, mobile consumer products as well as PC's. When we further extrapolate and attempt to value these trends, the absence of change is compelling. Growth curves are unbroken and similar, and investors obviously believe that this growth will continue at the same rate," says Knafve.

U.S. sets prices

According to Knafve, investors tend to judge global developments by looking out their own back door. And since the U.S. investor is the most powerful, being the final arbiters

of stock market prices, developments in the U.S. have a significant impact on share prices.

"U.S. investors have seen relatively slow growth in the cellular market as opposed to the Internet. Therefore, datacom vendors have traded at a significant premium relative to cellular vendors. This has changed somewhat as both the mobile consumer product and infrastructure markets are beginning to pick up in the U.S. However, the dynamic effects of the second wave are still not evident in share prices, and datacom companies continue to be more highly valued than mobile telecommunication companies," says Knafve.

No drama in forecasts

The financial market's forecasts indicate very little drama, no "hockey stick" curves, in second wave trends in the communications industry.

However, Knafve sees that the inevitable convergence between mobile communications and the PC market is associated with major shifts in technology, market share and consumer usage patterns.

"For the financial market to catch on at an early stage, the technology and its implications have to be easy to understand. For a long time the digitalization of mobile telephony, for example, remained too abstract for the American investor to catch on," says Knafve. "When it comes to 3G telecom products, we have yet to see a trend and we still don't understand the technology. Companies in the communications industry have to help us to understand where they are going, so that we can prove Warren Buffett wrong," Knafve concludes.

Sue Anne Moody

Mentor Graphics invites You to The First Combined

SOLUTIONS EXPO/SEMINAR & MUC'99

OCT 13-15 at Electrum, Kista

ERICSSON

Reserve days in your calendar, invitation in mail end of August.
For more information and registration: www.lme.ericsson.se/lmedtm2/SolutionsExpo/

Mentor
Graphics

Nokia share down despite report

Market reactions to Nokia's and its competitors' half-year reports were mixed. Expectations on Nokia's earnings were sky-high. However, despite better-than-expected earnings, the Nokia share plummeted.

In total for the week, Nokia dropped 12.2 percent to SEK 730.

During the week of the report, the

Swedish daily press noted that Nokia's profit margins for cellphones are the best in the world. During the first half-year, the company earned more than SEK 11 billion from its telephones. Swedish daily Dagens Nyheter commented that the company has succeeded in expanding faster than Ericsson, without having to tie up more capital, but that – on the other hand – Nokia is extremely de-

pendent on its mobile phones and is not growing as rapidly as Ericsson in mobile systems. The phones account for as much as three-quarters of the Nokia Group's profit.

Lucent, IBM and Microsoft shares also fell sharply following the presentation of the companies' interim reports. Ericsson was one of the few stocks that actually rose, by 4.7 percent, during the report week.

More major acquisitions

Last Friday Deutsche Telekom announced that they are to buy mobile operator One2One in a SEK 112 billion deal. France Telecom recently bought into cable-TV company NTL, a transaction costing SEK 46 billion. Further major purchases may be coming in the telecom industry – that is, if certain rumours that have been circulating are true.

One2One is the fourth-largest and fastest growing U.K. mobile operator. Through the purchase, Deutsche

Telekom will have a total of 12 million subscribers.

Former French PTT France Telecom has purchased a quarter of the shares in cable-TV company NTL, to strengthen its position internationally. NTL's operations base includes the U.K.

France Telecom's investment set NTL free to bid on its competitor, Cable and Wireless Communications, most of which is owned by U.K. telephone company Cable and Wireless. If the transaction goes through, NTL will be the largest cable-TV company in the U.K. and Ireland.

When news of the NTL transaction broke, rumours of several other takeovers and mergers in the European telecom market began to be heard. For example, Deutsche Telekom and Telefónica were alleged to be interested in consolidating their operations. According to market analysts, such a merger would be logical in view of the companies' previous investments and considering that both companies are keen to grow internationally. The suggestion has circulated in the industry before, but Telefónica and Deutsche Telekom have consistently denied it.

Two new light-weights introduced this summer

This summer, Nokia and Panasonic both launched new telephones in the ninety-gram class.

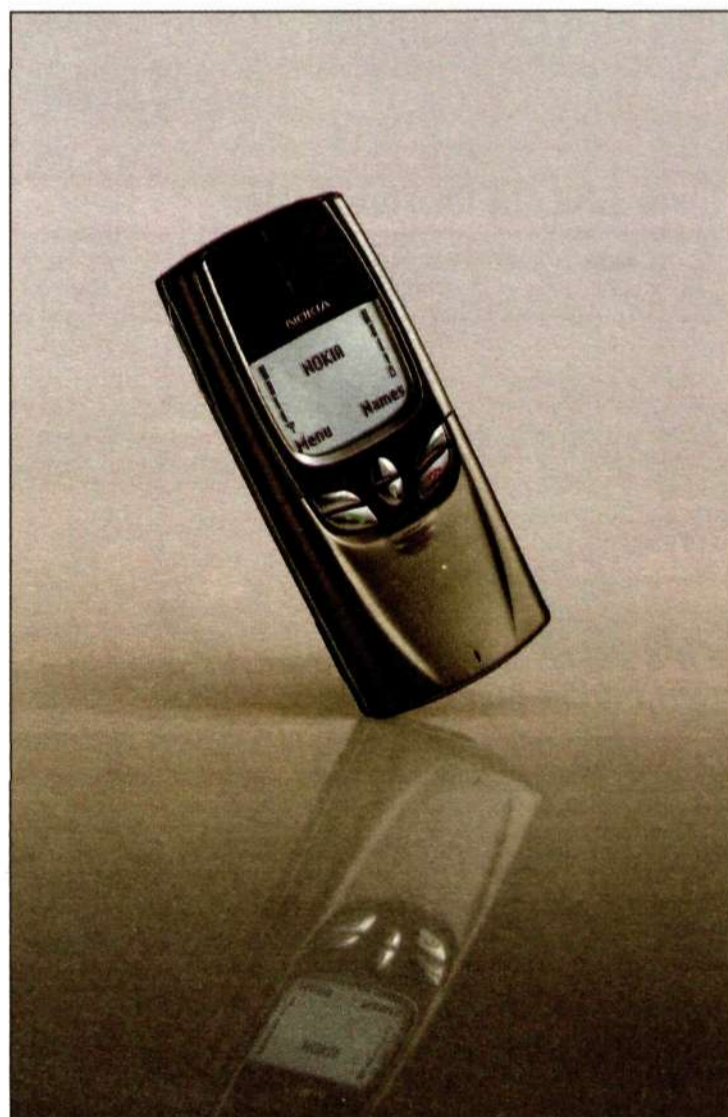
The Nokia 8850 weighs in at 91 grams and is being marketed as a smaller copy of the 8810, with a slightly different casing design and silver buttons.

The new phone is voice-controlled and has a vibrator ring signal. Call time is about three hours and 20 minutes, with up to 150 hours of standby time.

The phone is also equipped with T9, a system to simplify communication using text messages. The phone senses the most likely word to be written, so it's enough to press one letter button to produce the right word.

Panasonic's new product, the GD90, is small, slim and light-weight at 96 grams. Panasonic has developed a new type of battery – from a lithium polymer – which helps to minimize the total weight. Available call time is three hours, with standby time for a maximum of 90 hours.

Finishes included with the GD90 include a phone book that stores up to 100 names and numbers. With two available text colors in the dialog display, numbers can be stored in various categories, for example, work-related and personal. Personal calls can be indicated in yellow text, work-related in green.



Nokia's latest – the 8850 – weighs only 91 grams.

COLUMN



Bobby Chang

The coming age of terabit routers

Not long ago, networking equipment such as Ethernet and routers with gigabit capabilities (processing more than one billion bits per second) was a hot topic. With advanced improvements in fiber and data transmission technologies, very recently several U.S. equipment vendors start to promote a new generation of routers that can expand from the capacity of gigabits per second up to the terabits (one trillion bits, 1 terabit = 1,000 gigabits) per second range. According to a study done by Ryan Hankin Kent, the IP routers market will grow from USD 169 million in 1998 to USD 5.5 billion in 2003.

In any IP-based networks, there are two important network components: router and switch. A router is a layer 3 device that forwards IP packets across the network, whereas a switch is a layer 2 device that forwards layer 2 protocol packets. Usually a router is more complicated than a switch for it provides a rich set of tasks such as IP route management, buffering and queuing, IP forwarding function and also supports various protocols and interfaces. Therefore, the price of a router is usually higher than an equivalent switch.

INTERNET TRAFFIC HAS GROWN more than 1,000 times every five years. This tremendous growth is the major driving force behind the continuous improvement of IP routing. Cisco Systems has been the dominant player in the router business for some years. Recently a few start-up companies have made advances in routing architectures and switching fabrics that are capable of forwarding packets at terabit rates.

On the other hand, Cisco's most powerful router, the GSR (Gigabit Switch Router) 1200 series, quadruples the performance of its predecessors, and has a maximum capacity of 60 Gbps by adding switch fabric cards. Those start-ups' terabit routers might become the backbone of convergent infrastructure in the future and create potential threats to Cisco's core business. Several major equipment vendors such as Lucent and Nortel have taken strategic moves into the terabit router market to defend their business as well as challenge Cisco.

Juniper Networks, in which Ericsson is one of the equity holders, is the first company that has a terabit router product on the market. Juniper's M40 Backbone Router became available in September 1998 and service providers such as Cable & Wireless and UUNET have already deployed it commercially.

Argon Networks' major terabit router product is the GigaPacket Node (GPN), which is targeted at the metropolitan market segment. Currently two service providers – IXC and Williams – are testing the product. Siemens acquired Argon in March, 1999, for about USD 240 million.

NEXABIT NETWORKS BELIEVES that the traditional routers can not scale enough for terabit speed. Its NX64000 is a leading product in scalability that can deliver OC-192 ports and supports ATM, IP, frame relay and MPLS. It is one of the world's fastest terabit routers with up to 6.4 terabits per second. It can also fuse together an unlimited number of the routers to function as one single unit. The NX64000 will be launched commercially in the third quarter of 1999. In late June this year, Lucent bought Nexabit for about USD 900 million in stock.

Avici Systems applies the supercomputing technology to produce its 45000 Terabit Switch Router. It uses a three-dimensional mesh design to couple multiple Avici routers together to scale up to 45 terabits per second. In April 1999, Nortel took a 20 percent equity stake in Avici to create a carrier-class switch that could tie in its IP networks.

NetCore Systems uses a similar approach to Avici. Its Everest Switch is a hybrid router/switch that allows operators to link up to 64 switches to reach a speed of 2.5 terabits per second.

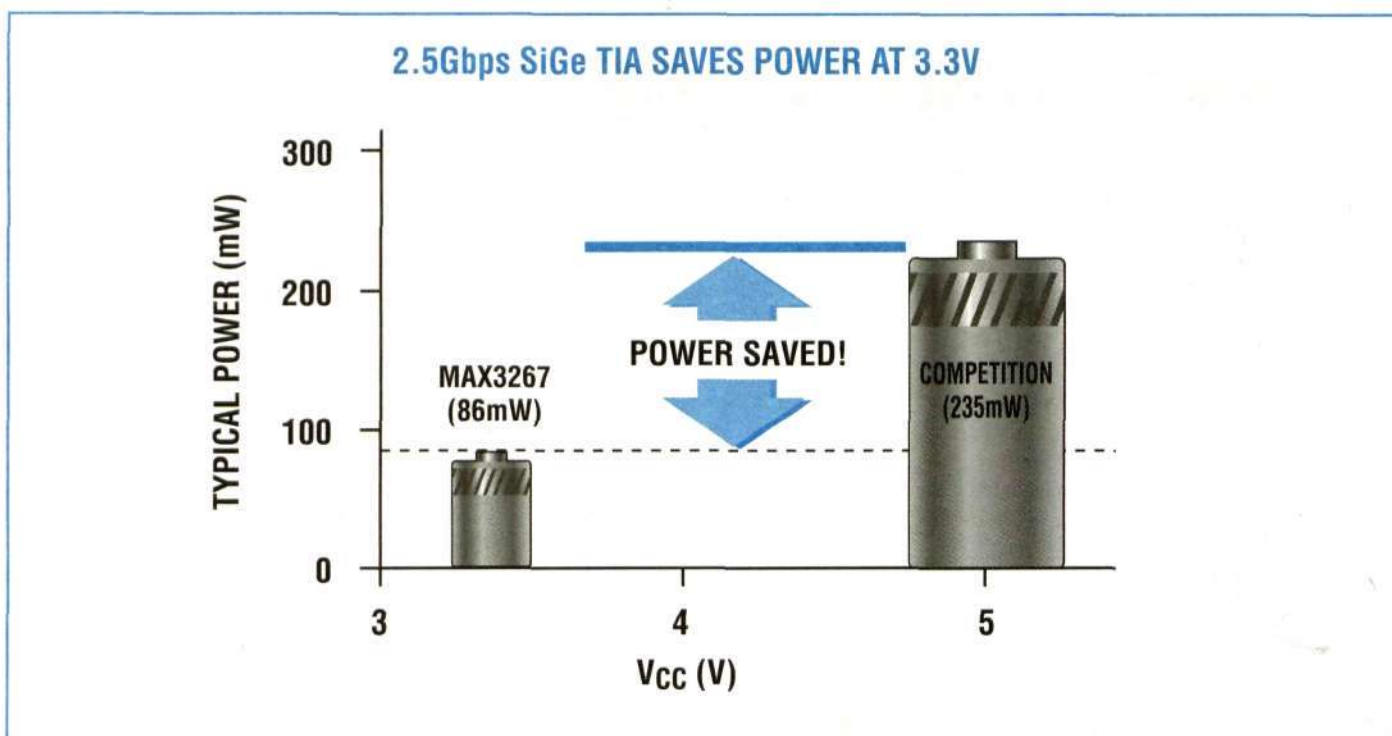
Pluris Inc. also uses a similar approach that its Pluris 20000 Terabit Network Router can link together to offer up to 184 terabits per second of non-blocking switching capacity and 19.2 terabits per second of line capacity. Deutsche Telekom is evaluating the Pluris 20000 for its next generation network backbone architecture. The product will be commercially available during the fourth quarter of 1999.

IN ADDITION TO THE ABOVE VENDORS, several other companies like NEO networks, Cabletron, Newbridge, Ascend, and Nortel are also developing internal core router competence that can offer terabit capabilities. To play a major role in this core router market, companies must have technical competence, intensive capital, distribution channels and outstanding customer support and service. Start-ups will inevitably be allied to or acquired by large players. We will see more consolidations in the near future.

Bobby Chang is a business intelligence manager in the North American region and is involved in the company's competition and industry monitoring activities.

WORLD'S FIRST SiGe 2.5Gbps 3.3V TRANSIMPEDANCE AMPLIFIER

2.5Gbps Gigabit Ethernet SiGe TIA Uses Only 86mW



The 2.5Gbps MAX3267 and the 1.25Gbps MAX3266 both operate at a low 86mW. Both TIAs have on-chip compensation capacitors and on-chip photodiode filter resistors for space-saving assembly in TO-style headers. The TIAs have identical pinouts for easy performance upgrades and are available as die and in an SO-8 package.

Choose the Ideal 3.3V TIA for Your Design

PART	DATA RATE (Mbps)	BANDWIDTH (MHz)	NOISE (nA)	DYNAMIC RANGE (dBm)	V _{CC} (V)	PRICE* (\$)
MAX3267	2500	1900	485	-21 to 0	3.0 to 5.5	5.04
MAX3266	1250	920	200	-24 to 0	3.0 to 5.5	4.02

*1000-up factory direct, FOB USA

1999 EDITION!
FREE FULL-LINE DATA CATALOG
ON CD-ROM



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

MAXIM
www.maxim-ic.com



For Engineering Employment Opportunities in Maxim's Fiber Group
fax M. Piatte or e-mail michelle_piatte@ccmail.mxim.com

Distributed by Arrow, CAM RPC, Digi-Key, Elmo, Marshall, Nu Horizons, and Zeus. Distributed in Canada by Arrow, and Marshall.

Austria, Maxim GmbH (Deutschland); Belgium, Master Chips; Czech Republic, Spezial-Electronic KG; Denmark, Arrow Denmark A/S; Finland, Acte NC Finland Oy/BC Electronics; France, Maxim France, Distributors: Maxim Distribution, Dimacel Composants; Germany, Maxim GmbH, Distributors: Maxim Distribution, Spezial Electronic GmbH; Ireland, FMG Electronics; Italy, Maxim Italy, Distributor: Esco Italiana S.p.A.; Netherlands, Koning En Hartman; Norway, Acte Norway AS/BC Electronics; Poland, SE Spezial Electronic Spolka Z.O.O.; Portugal, ADM Electronics, S.A.; Russia, Spezial-Electronic KG; Spain, Maxim Distribución, ADM Electronics S.A.; Sweden, Maxim Sweden, Egevo AB; Switzerland, Laser & Electronics AG; Turkey, Inter Elektronik A.S.; U.K., 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. ©1999 Maxim Integrated Products.

It is becoming increasingly clear that Japan will be the first market in the world to launch a third generation mobile telecom system. Several factors have contributed to this development including cultural forces, advanced technology and a strong desire for success following disappointing sales of Japan's domestic PDC mobile telephony standard. Ericsson is playing a very active role, currently testing two WCDMA systems, and has strong ties to the leading players.

Third generation to put the world at Japan's feet



Japan plans to become the first country in the world to put WCDMA technology into commercial operation in April 2001.

Photo: Lars Åström

Just five years ago, it was rather unusual to see people walking around the streets of Tokyo with mobile phones. Today, however, the situation is completely different. But unlike the rest of the world where business people have been the impetus for change, here it has been the country's many young trendsetters – today almost 90 percent of those between the age of 20 and 30 have a cell phone.



Teenage girls are the fastest-growing segment of mobile telephone users in Japan.

Photo: Jan Kind

A market driven by the young

Interest for mobile phones had exploded in Japan. A steady stream of Japanese-manufactured terminals and PDAs (Personal Digital Assistant) are being pumped to consumers, a development which has been eagerly followed by various industry trade publications. After a slow start, Japan now ranks second only to the U.S. in total subscribers – with approximately 43 million. Growth is among the highest in the world with approximately 1 million new subscribers every month.

April 2001

In April 2001, Japan will launch the world's first commercial WCDMA service. This rapid launch is partly due to capacity limitations of the existing PDC network, but perhaps more important is that the Japanese PDC system failed to take off outside Japan. Japanese manufacturers now want to take the lead in order to sell their terminals and systems on the international market.

"Third generation technology has a great potential for success in Japan particularly since images – and consequently multimedia – are such an important part of Japanese culture," explains Lars Sandström, New Accounts Manager at Nippon Ericsson. "The Japanese market is very concentrated and homogenous – 70 percent of the population lives in the three largest cities – which means that new applications can quickly achieve a high degree of market penetration."



Lars Sandström

More functions

When it comes to terminal size, Japanese manufacturers are in a league of their own – today's smallest terminals weigh only about 60 grams.

Product life-cycles are shrinking and the current life span of a Japanese mobile terminal is now just over six months.

"Japan has also made great strides when it comes to functionality and new applications," continues Lars Sandström. "You can now download your favorite music to your telephone, access timetables and traffic information and receive daily updated horoscopes. It's even possible to have a Tamagotchi in your mobile phone and e-mail it to a friend when you can't take care of it. Other services popular in the West, such as voice mail, have not caught on in Japan, however. This is due to the fact that Japanese consider it impolite to

leave a voice message, preferring instead written messages."

Alphabet an influence

The fact that the Japanese alphabet – kanji – is partially formed using characters containing large amounts of information, has also contributed to this rapid development.

"It's already possible to download web pages on the Japanese PDC network, despite the fact that the network really lacks sufficient bandwidth," says Lars Boman, Senior Vice President for Nippon Ericsson, who is responsible for Mobile Systems Market Support. NTT has already launched a service, called i-mode, which is similar to WAP technology, enabling users to download compressed web pages to their terminals. As of last May there were approximately 200,000 subscribers with 20,000 new ones joining each week. Another example is Easyweb, being marketed by DDI-IDO, which is based on early WAP technology. Despite the fact that it uses Internet technology, customers are not told this, since some Japanese consumers are still skeptical towards the Internet.

"The main problem is that the people who are dreaming up future WCDMA applications are men in suits over the age of 40, even though the fastest-growing customer segment in Japan is 17-18 year old girls," says Lars Sandström. "These so-called Shibuya girls (named for an area in Tokyo) have their own special requirements. Many have called their operators to complain that coverage is poor underneath their blanket in their bedrooms. The large proportion of young subscribers has no doubt also contributed to making Japanese terminals much more user-friendly in general than those made in the West."

Recruitment easier

Of the over 1,000 people currently employed at Nippon Ericsson, approximately 750 are Japanese. Today, Ericsson is the third largest supplier of mobile systems in Japan after Fujitsu and NEC.

"Currently, there are good opportunities for developing research and development operations here in Japan, enabling us to become even more active in third generation systems," says Lars Boman.

In the past, it has been difficult to recruit qualified employees, but that has become easier recently. The economic crisis has made the Japanese realize that not



Lars Boman



Japan will likely become the first market in the world to launch the telecom system of the future. Cultural forces, advanced technology and a general desire for success are some of the contributing factors.



The Kinkakuji Temple at the Gold Pavilion.

Photo: Lars Åström

even employment at the largest of Japanese companies is secure anymore. At the same time, foreign companies such as Ericsson have expanded during the crisis. NTT DoCoMo is the world's largest mobile operator and one of the most competent. Ericsson was the supplier of, among other things, DoCoMo's WCDMA test system and has a very close partnership on the research and development side.

"In the past, we operated in a product-oriented manner, but now we've become customer-oriented in order to better focus on the customer," says Sven Eriksson, Director of Ericsson's NTT DoCoMo Business Division, the unit that works for NTT DoCoMo.

"Today, we have a very close relationship with NTT DoCoMo – which is also one of our most demanding customers. Their informed opinions are extremely valuable in our work with the third generation system, which they have decided to be the first in the world to launch."



Sven Eriksson

Jan Kind

Japan Telecom largest customer

Ericsson's biggest customer is Japan Telecom, which accounts for more than 75 percent of Ericsson's sales in Japan.

"We've been successful as a main supplier of infrastructure solutions and have as our stated ambition to continue to move up the value chain," says Kent Asai, who heads Ericsson's Marketing Department for Japan Telecom. "In the future, we want to work even more closely with the customer's strategies, marketing and management and we are in a good position to do so."

"In order to showcase the breadth of our competence and to strengthen our partnerships, we recently held a customer seminar which included Ericsson customers from Europe and the U.S. who discussed developments in their own home markets along with future solutions. This made a very strong impression



Kent Asai

on Japan Telecom who, like NTT DoCoMo, want to increase their visibility outside of Japan," says Kent Asai.

Ericsson has been an active participant in the standardization work surrounding WCDMA in Japan. The work has been led by Gustav Brismark, General Manager for IMT-2000 Product Management.

"The fruits of our labor have been many," says Gustav Brismark. "To begin with, we've been able to present Ericsson's own solution – which of course puts us in a very strong position in the Japanese market. Secondly,

our extensive engagement in the standardization work has further improved our image, which we have had a difficult time building in the past, since we have not sold any terminals here in Japan."

"We'll have many benefits in other markets from our experiences with WCDMA in Japan. In the future, Ericsson will be encountering not only its traditional competitors around the world, but also several Japanese companies who have honed their teeth in their own domestic market," says Gustav Brismark.



Gustav Brismark

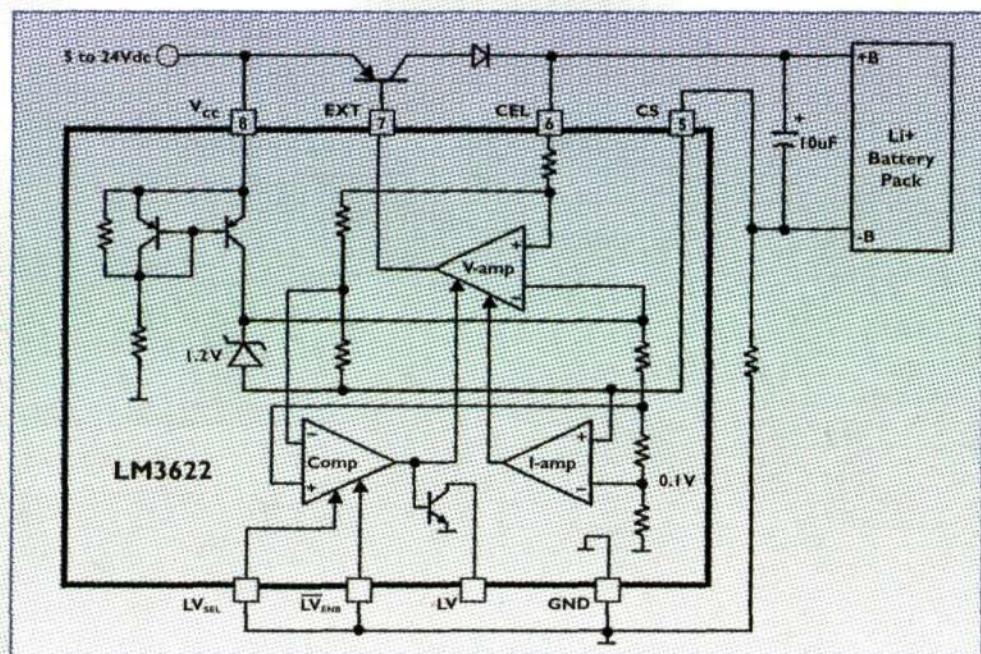
Jan Kind

The lowest cost, most effective charge Controller for one-and two-cell lithium-ion battery packs

National's LM3622 - Controlling a low-cost PNP pass transistor, this charge controller offers the lowest-cost, most-accurate solution for voltage and current-charge control in hand-held devices.

- 0.7 % or 1.2 % regulation voltage accuracy for charging lithium cells to optimum capacity
- Wide 4.5 V to 24V supply voltage range for low-cost charger supply
- 1 and 2 cell versions available that can be designed into a wide array of applications
- Requires only 4 external components which lowers application costs
- Offers internally trimmed voltage setting so there is no need for highly accurate voltage-termination setting resistors
- 25 mA typical drive current so an inexpensive PNP with a beta of 40 provides 1 amp of charge current
- Provides flexible low-battery voltage detection for adaptability to coke and graphite anode battery chemistries
- Low 200nA off-state current which prevents battery discharge when source is disconnected
- Comes in an SO-8 package which makes it the smallest CVCC Lithium charge controller available

Small format and footprint, wide versatility and adaptability, plus low price make the LM3622 the most effective (and cost-effective) controller for cellular phones and PDA cradle chargers available today.



©1999 National Semiconductor Corporation. National Semiconductor and μ are registered trademarks of National Semiconductor Corporation. All rights reserved.

For more info:
www.national.com or fax us at
+ 49 (180) 512 12 15



National Semiconductor®

Full-scale DECT product roll out

Ericsson's Business Cordless Telephony product unit in the Netherlands unveiled seven new wireless DECT telephones, along with two new DECT systems, earlier this summer.

Nils Pierre, head of the product unit, notes that the slow delivery times and quality control problems that were a problem for the product unit in the past are now just a memory. The focus now is on making money by offering the most complete selection of wireless telephones and accessories on the market.

"This year we've introduced two completely new solutions that affect Business Cordless Telephony," says Nils Pierre. "The first is the Onephone solution for the British operator BT which combines DECT and GSM telephony. The second is an integrated solution for up to 10,000 DECT telephones in the BC-10 release of the MD 110 PBX."



Nils Pierre

Nils Pierre also describes a new partnership between Ericsson and the Swiss company Ascom.

The partnership involves the welcome addition of very durable DECT telephones for people who work in taxing industrial environments including logistical operations in warehouses, hospitals and the like.

"I have great expectations. We're now leaving the planning stage and becoming operational," says Magnus Karnsund, head of the Wireless Office business unit to which Business Cordless Telephony belongs. "The partnership with Ascom is important. It expands the depth of our expertise."



Magnus Karnsund

Magnus Karnsund concludes that Ericsson, with its many alternative solutions, is now the leader in the "wireless office" market.

"Our collaboration with Ericsson is a definite win-win situation," says Max Federmann, international marketing manager at Ascom Tateco. By working together we'll be unbeatable in the market."



A pallet with new DECT telephones. From left, the DT288 for small offices, the DT368 loaded with features, the TH688 incorporating both DECT and GSM along with models for harsh environments: DT400, DT420, DT410 and DT430.

Photo: Thord Andersson

At a presentation of the new Ascom-developed telephones, product manager Erik Gervedink Nijhuis demonstrated their durability by literally throwing a phone down onto

the floor. The units, which are both water and dustproof, can handle such treatment without difficulty.

Herman Deelen, product manager, paints a very bright future for DECT.

"Although GSM on the Net is now being introduced in Europe, DECT is maintaining its hold and even growing stronger," he said. "The market is expanding at a rate exceeding 30 percent per year."

That also explains why the competition has become tougher – Siemens, Alcatel, Philips, Nortel and Lucent have all joined the DECT race. In 1998, Ericsson was the clear leader with a market share of 39 percent. This year, however, Ericsson has lost some ground in the DECT field, mostly due to delivery problems. Its leading position remains unchallenged, however.

Thord Andersson

thord.andersson@ebc.ericsson.se

NEW DECT SYSTEMS AND TELEPHONES

The two new DECT systems are marked by simplicity in every respect. The smallest, most economical, the DCT1900-S, can accommodate up to 40 users and up to eight base stations. Its potential market is huge considering that 82 percent of all companies have between one and nine employees and 15 percent have between 10 and 49. The system can be used anywhere since there are no national requirements to be met.

The DCT1900-GAP R2.0 also supports text messaging. All seven of Ericsson's new telephones as well as some models from other manufacturers, can be used with it. The system is designed for both medium-large and large companies and can expand along with

customer's needs. The radio switch can be connected to any business switch.

Telephones

The DT288 has the same design as those for home use. It weighs only 139 grams and is an inexpensive alternative for those who are not looking for lots of extra features.

The DT368, with its classically elegant design, is primarily designed for office use. It can be equipped with all kinds of accessories.

The TH688 combines the best of two worlds. It weighs 220 grams and works as both a DECT and GSM telephone. The docking station serves both as a recharger and an automatic speakerphone.

There are four telephones in the Ascom-developed DT series. They are all designed to withstand rough treatment and are both dust and waterproof.

While the DT400 is only for voice communication, the DT410 can also receive messages up to 128 characters in length during a call.

The DT420 also includes a personal alarm button.

All three models – the DT400, DT410 and DT420 – can be equipped with vibrating ringers.

The DT430 includes all of the above mentioned functions but is also explosion-proof, with screw-secured batteries for inflammable environments.

c-Mate – a living mobile phone book

With c-Mate loaded into a mobile phone, it's possible to keep track of friends and colleagues. A continually updated telephone catalogue lets you know where they are and if it's possible to contact them. "With c-Mate, we're helping operators earn money on information that already exists within their networks," says Tomas Gabinus, at Ericsson's Ebilits innovation center in Gothenburg, Sweden.

Imagine being able to keep track of friends and family members, or even colleagues working on a mutual project. You would have a continuously updated list in your mobile phone that would show you where they were and if they were talking on the phone, not wanting to be disturbed or temporarily unavailable.

Ericsson's Ebilits innovation center in Gothenburg, which is developing c-Mate, is helping make that vision becoming a reality.

To utilize c-Mate's functions, a user begins by entering a list of people that he or she wants to keep track of. The list is personal and stored

HOW C-MATE WORKS

The c-Mate service is hosted on a server in a mobile phone system's USC (User Service Center). Using data from the MPC (Mobile Position Center) c-Mate gathers information about the listed people's locations. Armed with the information about the cell in which a mobile phone is located, MPC can determine the location of a telephone to within 125 meters accuracy.

Taking information from the HLR (Home Location Register), c-Mate determines the status of listed people's mobile phones, if they are turned on or off, whether they are outside the range of coverage, and so forth.

with the mobile phone system. At any time, the list can be downloaded to one's telephone updating the user as to the location and status of those people. Not just anybody can be listed, however. When one person adds another person to their list, an inquiry is sent to that person, asking them if they agree to participate in list.

"Integrity is an incredibly important aspect of this," says Tomas Gabinus, head of Ebilits. "Information about a person's location can be particularly sensitive. That's why c-Mate has two levels of security. In addition to the general authorization to be included on a person's list, it's also possible at any time to go in and shut off the ability for others to see where one is located."

The status of people on the list can register one of four things: that they are available, busy on another call, temporarily inaccessible or that they don't want to be disturbed.

"As the person being listed, you can choose

your own status," explains Bo Granstam, project manager for c-Mate. "It's possible, for example, to indicate that one does not wish to be disturbed. The message 'temporarily unavailable' indicates that the telephone is shut off or that the person is outside the range of the network."

"In order to more efficiently update the list, c-Mate also has a web function," explains Mattias Leijon, software developer at Ebilits. "By accessing an Internet web site, users can update their lists and retrieve information about those listed."

Users of the communications portal iPulse, which Ericsson developed in conjunction with oz.com, will be able to gain access to some of c-Mate's functions.

The main benefit of c-Mate is more efficient communications. Armed with the knowledge of where the person one wishes to contact is, and the status of his or her telephone, it's possible to avoid unnecessary calls. c-Mate was first unveiled to an audience of mobile phone operators who were invited to Ericsson's GSM Data Conference at the beginning of June. The service attracted a great deal of attention and several of the operators expressed an interest. One operator is even prepared to begin field-testing c-Mate.

"Portions of c-Mate will be ready for field-testing already this autumn," says Tomas Gabinus. "By the beginning of next year, a complete system could be in operation."

Niclas Henningsson



Using c-Mate, a mobile service developed by Ebilits, it's possible to keep track of one's friends and colleagues. Tomas Gabinus, head of Ebilits, speaks with colleagues Roberto Busso, Mattias Leijon and Bo Granstam.

Photo: Sofia Sabel/Kamerareportage

www.c-mate.com

ERIC & SON



NOTEWORTHY

Ericsson exhibition rolls across Europe

► At the end of August, Ericsson's exhibition truck will start rolling through Europe to show off a number of Ericsson products.

The 15-meter long, 60-cubic meter truck will showcase products and systems such as WLAN, DECT mobility, Webswitch and a few of the company's telephony solutions that are part of the core system of Businessphone.

The journey, which will last a little less than three months (August 17 to November 7), will take the exhibition through Switzerland, Germany, Austria and Spain. Ericsson's market units in each country are responsible for the exhibition.

Never before has Ericsson shown a traveling exhibition in so many countries.

FROM THE PAST

Ordinary phone all dressed up

Ericsson's Diavox telephone is the company's most successful analog phone ever for fixed networks. The model was introduced to the market in autumn 1977 and was manufactured at a plant in southern Sweden. A total of 6.5 million were made between 1978 and 1989. In addition the Swedish operator Telia also manufactured an unknown number of units.

Several models were available. The Diavox phone came in push-button, rotary dial and even speakerphone versions. The most unusual and sought after of these models is the luxury version made out of hardwood in 1984.

Every telephone was individually numbered and delivered with a certificate of authenticity. That unique series of telephones was manufactured on behalf of Ericsson at Telia's plant in Nynäshamn, south of Stockholm.

Diavox, which was originally designed to work with the AXE switch which was launched in 1976, is typical of 1970s Swedish design. It was Carl-Arne Breger, Sweden's most influential post-war designer, who gave them their design. One Diavox with wooden housing is on display at the Museum of Modern Art in New York. Ericsson's and Telia's jointly owned company, Ellemtel, stood for the technical aspects of the phone.

The dialing pad was positioned to one side of the apparatus for both esthetic and technical reasons. That made it possible to use a thinner circuit board and, later on, one on top of another, which was necessary for the demanding system telephones. The unit was held together by only two screws.

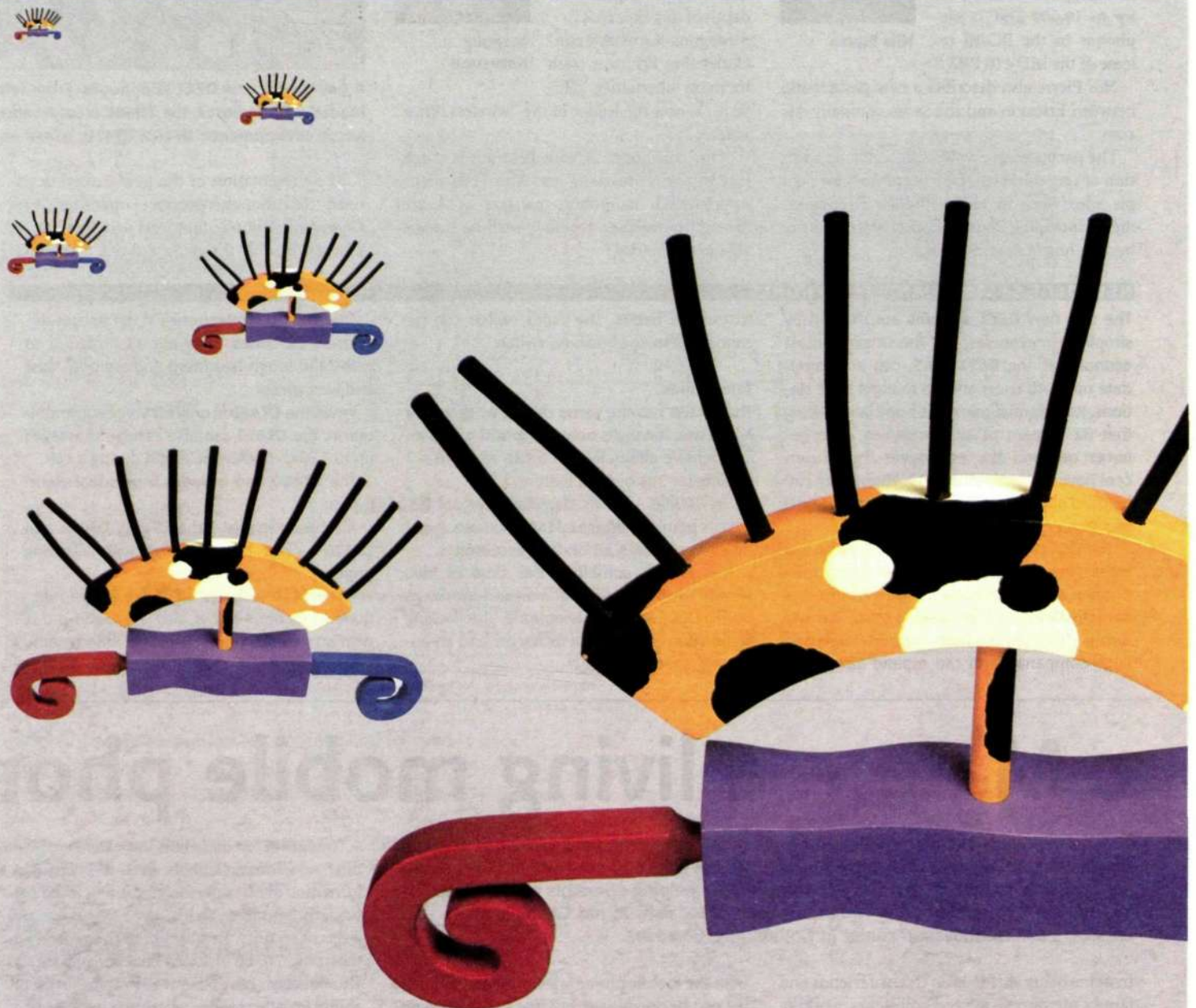
Diavox got off to a flying start. Production was scheduled to begin in early summer 1978. In December 1977, Ericsson received what was then the world's largest ever telecom order from Saudi Arabia. This marked a breakthrough for AXE and also included 400,000 Diavox phones, 75,000 of which were to be delivered prior to October 1978. Three days prior to the deadline, the plant in Sweden completed the task.

Thord Andersson

thord.andersson@ebc.ericsson.se



The luxury Diavox telephone model came in teak, cherry, walnut and mahogany.



UMUX 1500 bridges the gap in your access network

UMUX 1500 is increasingly being used by network operators and private enterprises to close the gap between the transport network and the end customer. In particular, the direct connection of telephony and data services to an SDH ring has proven to be an effective and economic solution. Thanks to the enhancement of the UMUX platform with the UMUX 1500, our customers can now also profit from the cross-connect function and the V5.x interface. If you would like to know more about how UMUX can bridge the gap in your network, please contact us right away. Ascom Transmission Ltd, Belpstrasse 37, CH-3000 Berne 14, Phone +41 31 999 13 03, Fax +41 31 999 18 74, Internet www.ascom.ch/transmission.

Ascom Transmission Ltd is a partner of Ericsson in the field of carrier access.

Ascom is an internationally active Swiss telecommunications and service automation group, with more than 10,000 employees worldwide.



ascom *thinks ahead*

Vacancies

AT ERICSSON

■ This is a selection of vacancies within the Ericsson corporation. They are published in the electronic News system, which is being updated once a week.

For further information about advertising here, send an email to Imejobs@ericsson.se

Contact No. 12 1999

Updated August 9

ERICSSON RESEARCH CANADA, MONTREAL

Data Transcript Engineer, Team Leader

● The DT engineer is responsible to configure the MSC software used in the PU-MSC test-plants. In general, the configuration reflects the Basic Configuration (or BASUP) employed by PU-MSC sites world-wide.

This is a position reporting directly to the NPC line manager. It is expected that the group leader be able to perform all tasks assigned to his/her group.

Responsibilities/authority and activities: Responsible for quarterly performance reviews, time report and overtime approval, and maintenance and development of the I module (i.e. Master and Delta DT files). As a team leader you will be responsible for team member competence development, and improvement initiatives within the teams operational scope.

Other daily activities include: generalize DT provided by the design teams for inclusion in the BASUP, work with the design teams on features that are "DT intensive", respond to DT change requests, respond to DT trouble reports, troubleshooting support for dump acceptance tests, updating the network plan for the different markets, updating and maintaining the core files, creating, updating and maintaining all web accesses for DT, and sometimes called upon to travel to customer sites for FOA activities.

Competence and requirements: University level engineering education or equivalent, ability to perform group's allocated tasks, good analytical skills, and good interpersonal skills.

Contact: John Mezzetta, manager, Node Production and Consolidation. (514) 345-7900 extension 2483, john.mezzetta@lmc.ericsson.se

CANTV (COMPAÑIA ANÓNIMA NACIONAL TELÉFONOS DE VENEZUELA)

CANTV was founded in 1930. It was privatized in 1991, when 40% of monopoly basic telephone network was sold to VEN-WORLD consortium (GTE-51%, Telefónica de España-16%, Electricidad de Caracas-16%, Banco Mercantil-12%, and AT&T-5%). Of the remaining 60%, 11% was bought by employees and 41% was kept by the Venezuelan Government. CANTV provides these services: voice, data and video transport, national and international long distance, mobile cellular services and public telephones throughout the country. CANTV has three subsidiaries: MOVILNET (Mobile cellular services), Caviguias (telephone directories) and CANTV Servicios (offering value-added services).

CANTV is our main partner in the Venezuelan telecommunications market, we have been working together for more than 50 years offering products solutions and services for the benefit of both companies. Today, Ericsson is the main solution provider for SDH Urban Transport Network, Intelligent Network, Directory Assistance Service, Portable Digital Radio, besides one of the most important new technologies (HDSL, Pair Gain System, etc.) and Access supplier.

Key Account Manager for CANTV, Caracas

● POSITION DESCRIPTION: Provide a brief description of the essential functions of the job: The Key Account Manager is fully responsible and accountable for customer satisfaction, achievement of profit targets and other financial performance objectives, development of business and product plans as well as operational targets, budgets, forecast etc.

The timely and professional execution of contracts and projects, coordination of all contacts and relations with the customer. The Key Account Manager shall have dedicated resources to the extent that assures the partner of our full commitment, highest priority of the business undertaking, and undisputed integrity in the execution. The function shall use shared and common resources to maximum extent. The Key Account Manager shall have management control of the following functions: sales and marketing, business development, promotion and introduction of new products and services, implementation and project management, product and technical management, after sales services, quality and financial performance

Requirements: Degree in Engineering / Marketing / Business Administration would be an advantage. Experience in the field of Telecommunications 5 - 8 / Information Technology for a minimum period of 5 years. Excellent spoken and written skills both English and Spanish

The Key Account Manager shall build and develop an organization, which is highly responsive and flexible, is highly respon-

sive and flexible, has an absolute understanding of the customer/partners, business, market environment, key success factors, financial drivers. Has resources and competencies to meet current and future needs, with special focus on data and IP based business, ensures full control of own results and performance, and has a high awareness of financial matters, takes advantage of synergy whenever possible, in shared and networked structures, has full understanding of, and are committed to, the objectives, goals, plans for the account.

Scorecards, see to that efforts are well coordinated and implemented ensure cost-effectiveness. Internal and external communication. Closely monitor competitors activities and positions. Implement competence management programs.

Contact: Recruiter, MARIA ISABEL MENESES, Recruiter Phone 58-02-2730181

ERICSSON D.O.O. LJUBLJANA, SLOVENIA

Keu Account Manager

● Ericsson Slovenia is looking for a new KAM responsible for the Slovenian leading mobile operator MOBITELE.

His/hers responsibilities will be to follow the Ericsson concept of Key Account Management. The KAM will work close to the customer. He/she will report to the president of EVN.

We are looking for the person with the following background: Deep working experience in the telecommunication field, preferably within mobile radio. Well established contact network within Ericsson. Broad management experience.

We believe that the competencies most required for the position are: Business orientation and excellent communication skills. Well developed cultural awareness. Fluent English and desirably also German.

Contact: Torbjörn Engström, EVNC, phone: +386 61 17 404 10, torbjorn.engstrom@evn.ericsson.se. Application: Marija Kajba, HR Manager, phone: +386 41 710 550, marija.kajba@evn.ericsson.se

ERICSSON RADIO SYSTEMS AB, KISTA

Would you like to have a NEW INTERESTING and CHALLENGING assignment in South America?

Ericsson Chile can offer you this!!

● We are looking for a new manager for our Customer Service Department. You will, as head of your department report directly to V.P. Operations and be part of the Operation Division Management Team.

The Customer Service Department consists of FSC activities for TMA, GSM, WIRELINE, OTHER PRODUCTS and CELLPLANNING/OPTIMIZATION.

You need long experience in this kind of work. Be able to lead and communicate with people, set priorities and take decisions under pressure. Be creative, interested in improving work procedures and not afraid of a heavy work load. English both spoken and written is essential. Spanish is a big merit. STILL INTERESTED?

Contact: CEC V.P. Operations Jan H. Lindqvist, 56-2 4405651 office, Jan.Lindqvist@ericsson.cl 56-09 3207061 mobile. Application: DEPARTMENT MANAGER CUSTOMER SERVICE, Ericsson Radio Systems AB, AH/HS Elisabet Grahl, 164 80 STOCKHOLM, elisabet.grahl@era.ericsson.se

ERICSSON BUSINESS CENTER ASIA-PACIFIC, ESM, KUALA LUMPUR, MALAYSIA

At GSM Systems Product Units BTS, BSS, CSS and PSS we will locate part of our Marketing and Sales Support for China and Asia-Pacific at ESM in Kuala Lumpur. Our goal is to enhance sales by giving expertise support to the Market Units in the same time zone and region. A unit will be established and hosted within ESM.

Marketing and Sales Support

● The positions, which are long-term (1 year) contracts, are open for individuals fulfilling the following qualifications: Vast experience from products and solutions and extensive contact network within the concerned Product Unit. Vast experience from customer meetings and presentations through Sales and/or Marketing of GSM products. University degree or corresponding education/training acquired through job experience.

Communication skills and fluency in English. Self motivated and driving with good co-operation skills

The job includes on-site support to our Market Units in China & Asia-Pacific. Thus, extensive travelling within the region is required.

Contact: All positions: Per Arvidsson phone +46 70 514 0872 or +46 8 404 8115, per.arvidsson@era.ericsson.se BTS: Kurt Sillen, phone +46 70 591 0390 or +46 8 757 2220, kurt.sillen@era.ericsson.se Per Arvidsson, phone +46 70 514 0872 or +46 8 404 8115, per.arvidsson@era.ericsson.se CSS: Johan Dahlström, phone +46 70 340 31 50 or +46 8 757 24 21 johan.dahlstrom@era.ericsson.se PSS: Kjell Arvidsson, phone +46 70 561 3346 or +46 8 757 0999 kjell.arvidsson@era.ericsson.se Human resources: Thomas Holmberg, ESM, phone +60 3 708 7364, thomas.holmberg@esm.ericsson.se Application: Monica Wänseth, Ericsson Radio Systems AB, LV/MS, 164 80 STOCKHOLM, monica.wanseth@era.ericsson.se

TELEFONAKTIEBOLAGET L M ERICSSON, STOCKHOLM

Team responsible

Corporate Treasury is responsible for Group Funding and Financial Assets and Liabilities Management within the Ericsson group. Managing financial risks throw setting and following up policies and guidelines regarding liquidity, currencies and customer financing.

● Corporate Treasury is now looking for a new member of the team responsible for financial asset and liability management, group funding and bank relations. You will work with a broad range of corporate treasury management and corporate finance issues on a consolidated level. Examples of the functions core activities are understanding and forecasting the outcome of the financial net and liquidity, equity hedging, funding, investment and rating analysis, interest rate and other financial risk management, capital structure considerations, implementing activities in the capital markets, treasury aspects of incentive programs etc. You will also be involved in the support of tools for bank relation evaluations, the corporate treasury scorecard and intranet communication.

The ideal candidate should have a minimum academic requirement have a Ma. Sc. major in finance, economics or equivalent, a couple of years experience related to capital markets, treasury management, finance or risk management and a good overall perspective of Ericsson. Fluency in English and skills in working with MS office applications are required. The informal environment of the small team often facing complex analytical tasks and tight deadlines puts great demands on flexibility and co-operating abilities. The function will be based in London from late September 1999.

Contact: Henrik Carle, +46 8 719 47 17, henrik.carle@lme.ericsson.se. Application: Internal job ad LME/DT, Telefonaktiebolaget L M Ericsson, HF/LME/P Maria Clewemar, S-126 25 STOCKHOLM, maria.clewemar@lme.ericsson.se

LM ERICSSON ISRAEL LTD (EOI)

has signed a contract for the supply of a complete GSM network in Israel. The project office is based outside Tel Aviv, the first, second & third phase of the implementation process has already been completed. We are now entering the fourth phase of this rapidly expanding project, and we are looking for:

Senior Integration Engineer, CME 20

● We are looking for a Senior Integration Engineer, CME 20 with at least 5 years of experience, - Knowledge from APT/APZ subsystems. Knowledge and understanding of all testing phases. Good understanding of the process flow of products from requirement to delivery, implementation and service. Knowledge of facilities and demands for good customer service. Good working knowledge of relevant quality systems. Ability to contribute to setting of standards and quality plans.

Your main tasks will include: To be able handle emergency situations during modification package implementations. To assist and guide lower level engineers to ensure correct working methodology. To prepare implementation instructions to ensure accurate and timely implementation of solutions and new application systems. To perform system test to ensure correctness of implementation procedures. To participate in business case preparation.

Contact: Kevin Murphy, System Deployment Manager, E-mail: Kevin.Murphy@eoi.ericsson.se Phone: +972 3 900 6000. Fax: +972 3 900 47 47. Application: LM Ericsson Israel Ltd. ATT: Irene Snir Tel: +972 3 900 6000, Fax: +972 3 903 0952, by E-mail: Irene.Snir@eoi.ericsson.se

LM ERICSSON ISRAEL LTD (EOI)

has signed a contract for the supply of a complete GSM network in Israel. The project office is based outside Tel Aviv, the first, second & third phase of the implementation process has already been completed. We are now entering the fourth phase of this rapidly expanding project, and are having a number of openings for the following position:

Data Transcript Engineer

● We are looking for a senior DT Engineer with at least 3 years of experience, preferably with knowledge from BYB 501.

Your main tasks will include producing a final I-module for all the existing nodes in the network, do DT for all feature expansions. Work with the customer in planning and introducing changes to the B-no, IMSI-analysis, charging, SAE, routing, International Roaming etc. both for the MSC and the BSC. Teach and train local employees. You will report to the System Deployment Manager.

All vacancies require long experience of AXE and GSM environment, international experience, and good communication and team skills.

Contact: Kevin Murphy, System Deployment Manager, E-mail: Kevin.Murphy@eoi.ericsson.se Phone: +972 3 900 6000 Fax: +972 3 900 47 47. Application: LM Ericsson Israel Ltd. ATT: Irene Snir Tel: +972 3 900 6000 Fax: +972 3 903 0952 by E-mail: Irene.Snir@eoi.ericsson.se

ERICSSON RADIO NETWORK PRODUCTS, RESEARCH TRIANGLE PARK, NORTH CAROLINA, USA

Base Station Radio Performance Verification Engineer

The Base Station and Systems Development Department is a BMOA organization in the US responsible for design and development of wireless base station equipment supporting the North American IS-136 air interface standard. Products under development include RBS 884 family Micro and Pico base stations. The successful candidate for this position will become a member of the Integration and Verification group, which is responsible for all testing activities for our base station products.

● Job Description: Perform radio receiver and transmitter performance testing on radio base station products. Develop performance test specifications and testing strategies based on internal requirement specifications and industry performance standards. Document test results and report all design deficiencies. Lead efforts to automate radio performance testing. Investigate new test methods and tools which would aid in the design and verification of new products and technologies. Represent the Integration and Verification group during project documentation and design reviews.

Previous Experience: At least 3-5 years of experience testing radio receivers and transmitters. Some understanding of GMSK, DQPSK and FM modulation schemes desired. Some familiarity with cellular industry air interface standards (in particular IS-136) and minimum radio performance requirement standards (IS-137, IS-138) desired.

Telecommunications and cellular system experience, preferably within test, preferred. Some hands on experience with RF test equipment and radio performance testing required. Knowledge of CMS 88 system useful.

Experience with UNIX operating system, Ericsson test tools and automated testing using Autosis would be a definite plus.

Other Information: Two year GCE contract position may be available to a qualified candidate. Occasional travel may be required (up to 10%).

Contact: Mike Melley Tel (ECN) 80227562 eMail: mike.melley@ericsson.com or Ulf Hagstrom Tel. (ECN) 80226235 eMail: EUSUHAG@am1.ericsson.se or Human Resources Mary Peebles Tel.(ECN) 80227550 eMail: EUSMBP@am1.ericsson.se 7001 Development Drive, Research Triangle Park, North Carolina, USA 27709

ERICSSON UNITED KINGDOM

Parameter Setting Engineer

● Within Network & System Configuration (NSC) there is a vacancy for a Parameter Setting Engineer who has the responsibility of dealing with several UK customers requiring both UK specific as well as Customer Specific parameter setting.

The successful applicant will have good communication skills as well as being able to work based upon their own initiative and drive to deliver complete solutions on time and with high accuracy. Previous experience of parameter setting or a Design background is preferred. Knowledge of the PHtool and Plexview as well as GAS/MAS/NAS/CAS concept is a plus.

You will be working on the Transgate and Translocal fixed line Product Lines alongside 2 existing staff. Local employment is preferred, especially if the applicant does not have a previous background of understanding subsystems and the required SPL to APL changes.

Contact: Network & System Configuration Manager, David Bodle, ECN 832 4242, Email: david.bodle@ericsson.com

LM ERICSSON LTD. DUBLIN, IRELAND, SOFTWARE CENTRE

The Software Centre (SWC) is part of a programme within ETX Wireline Systems (formerly Public Networks) to rationalise the handling of AXE software deliveries to our customers. The centre builds, verifies and delivers the Market Application Systems to Wireline Systems customers globally. The centre is located in Dublin, Ireland.

The Software Centre is also responsible for GAS maintenance for the product lines 12.3, Local 4 / Translocal 2, Local 5, Local 6 / Translocal 3, Local 7 / Translocal 4, Transgate 3 and Transgate 5. We currently have a vacancy in the following position:

Section Manager Software Specification & Supply

● We are seeking a person to head a section who have responsibility for the specification, parameter setting and programme production of Market Application Systems (MAS) and Global Application Systems (GAS). The duties of the section include the design of new MAS's and the updating of existing MAS's with CN-G's for customers in Europe and the Middle East and the updating of GAS's with CN-G's. Applicants should have at least 4 years experience in the areas of AXE specification, parameter setting and programme production.

We invite applications from personnel internally and externally who believe that they have acquired sufficient expertise in the relevant areas to undertake this task. The position listed may involve foreign travel.

As a screening process based on applications received will take place, it may not be necessary to interview all candidates. Applicants should apply in writing, enclosing a comprehensive Curriculum Vitae and names and Memo ID or email address of referees.

Contact: Margaret Gaffney, Recruitment Executive Manager, LM Ericsson Ltd, Beech Hill, Clonskeagh, Dublin 4, Ireland or email: lmi.lmimgy@eei.ericsson.se

ERICSSON LEBANON**Technical Support Manager**

● Ericsson Lebanon is looking for a "Technical Support Manager" in the Operations Division. As a System Support function you will be responsible for support of all sold & installed products at Ericsson Lebanon, STL.

The key responsibilities covers the standard product portfolio for System maintenance services (CSR/TR handling, emergency support and software updates) and supply related issues for GSM & Wireline. Under the Supply area the responsibility covers

all SW supply activities as well as the participation and acceptance of all new products and releases brought into the market.

Also under this group, there are responsibilities of all test implementation activities and all UNIX based nodes (OSS, MXE, PPAS, IN etc.)

For this position, we need a person whose profile meet the following requirements: BS Degree in Telecom, Computer and/or Electrical Engineering. At least 6 years of experience in Telecommunications. Good Technical background and Ericsson Product knowledge. Good Analytical Capabilities. Good Leadership Skills. Good Communication and Presentation Skills. Fluent in English, Arabic and French is a plus. Thorough understanding of the Support and Supply Process is a plus.

Contact: Elie Rouss, Operations Director, +961 3 34 88 96. Application: Christine Andrea, Human Resources Manager, E-mail: xtine.andrea@ericsson.com or Elie Rouss, Operations Director, E-mail: elie.rouss@ericsson.com

ERICSSON EUROLAB (EED)HERZOGENRATH/AACHEN, GERMANY**Assistant Project Manager**

● The CSS International Supply within CSS-G Operations are looking for an Assistant Project Manager for MAS Supply R8 project.

The Assistant PM will work together with our experienced MAS Supply PM to learn the activities needed to run a successful MAS project in order to take full responsibility for latter part of R8 total R9.

The responsibilities are to plan, assign, execute, control and report together with the MAS Supply PM all CSS-G Post-GA Verification and Acceptance activities for all Ericsson GSM Switching Customers; to assign and control the MAS Supply activities within the international organisation (ASO and SAFSC). ASO: LMF, REE, EUS, EPA, SAFSC: ETL, EDD, TEI, ETC; assign and control the possible activities being outstanding after GA of the R8 project (planned 00-07-01) such as feature evaluation in live network (that was not part of FOA) plan necessary support, needed SW/HW deliveries etc.

The purpose of the total MAS Supply project is to get an overview within the Product Unit CSS-G of all acceptance with each and every separate CSS-G customer and to allow for a smooth handover from TTM (Industrialisation project) to Global MAS Supply. This is needed in order to speed up the verification and acceptance from each individual customer to get earlier revenue, change out "old" Market Application Systems to decrease support costs, and in general make all customer facing organisations to work more closely to reduce cost and lead-time.

We are looking for a candidate with experience from AXE development projects but more importantly, one who has worked

in a customer facing unit with MAS supply, within mobile systems and MSC application in particular would be a merit. The candidate shall have Project management experience on quite a high level and must be familiar with the SW Supply activities involved for customer delivery.

He/She must be fluent in English, have good presentation skills, have a drive to deliver results with many organisations involved, be able and like to have many simultaneous activities, work excessive hours if required and handle quite a few trips within and outside Europe.

He/She must also have a solid background in AXE technology. Experience of GSM and in particular MSC is a merit.

Contact: EED/X/YTC, Human Resources Gustaf Oscarsson, +49.2407.575.203 or Simon.Seebass@eed.ericsson.se +49.2407.575-163

ERICSSON SPAIN S.A**BSS Senior Support Engineer**

Time period (start-end): January 2000 (1 year). Location: Madrid

● Main responsibilities for the position: System Maintenance support (Help Desk, TR Handling, SW Update, first line emergency support), Implementation of new releases, advanced trouble shooting (SW/HW), identify, investigate and solve problems of a complex nature.

One of the main important tasks is to transfer competence to local staff.

You should have advanced AXE experience and good knowledge of GSM system as well as deep knowledge of BSS, RBS 2000 family, Hardware Modernization and trouble shooting skills, providing emergency and day to day support to the customers as well as answering their questions and visiting sites.

Good knowledge of English is a must, Spanish knowledge would be appreciate.

Application: Jose M. Callejo, tel: +34 91 339 3110, Email: reejmccg@niepce.ericsson.se

ERICSSON TELEKOMÖNIKASYON, TURKEY**Support Engineers**

● We are now looking for a number of Support Engineers, for the below tasks: Main Responsibilities: Trouble-shooting activities on/off sites. HW/SW upgrades such as APZ upgrades/AS-changes/AC-A's. Participate in the on-call schedule to handle emergency situations. Test/ demo/ implementation of new fea-

tures and services. Trouble report handling and transfer of know-how to local staff.

Competence Requirements: CME 20 experience with a minimum of 4 years working on the SS or BSS subsystems preferably in customer support but applications with function testing/ verification experience will also be considered.

Strong knowledge of test system, PLEX and ASA. High competence in APZ/IOG. Ability to handle urgent S/W problem as well as the emergency situation in the field. Familiarity with MHS or MSS.

Good command of English and customer relations is a must. The position will be placed in Istanbul. The contract duration is initially for one year.

Applications: Kenan Özbek, System Support Manager Phone: +90 212 454 40 84 Mobile: +90 532 665 23 95 E-mail: kenan.ozbek@enk.ericsson.se Ferhan Karabacakoglu, HR Responsible Phone: +90 212 454 40 07 E-mail: ferhan.karabacakoglu@enk.ericsson.se

MU CARIBBEAN/EPR/JAMAICA**Account Manager - Jamaica and Cayman Island**

The MU Caribbean is responsible for marketing and deliveries of Ericsson products in the Caribbean Region covering an area of 230,000 square kilometers and with a population of 27 million people. Activities are carried out from offices in Puerto Rico, Jamaica and Curacao.

● We are looking for an Account manager for our customer Cable and Wireless in Jamaica and Cayman Island. The position will be based in our office in Jamaica.

As many different products are marketed, a broad experience in different areas is necessary. Candidates, should be able to demonstrate a working knowledge in several of the following disciplines: - digital public switching, signalling systems, intelligent networks, transmission systems, and cellular/ radio technology.

The customer is using both European (ETSI, ISDN, ITU) and American standards (AMPS/D-AMPS, ANSI).

To be successful in this job, candidates will need to be highly motivated, independent, prepared to spend time travelling, good negotiators and have proven commercial experience.

Contact: President MU Caribbean: Bo Carlsson +1 787 758 1770 ext 222, bo.carlsson@ericsson.com or HR-department: Kerstin Efraimsson +1 787 758 1770 ext 242, kerstin.efraimsson@era.ericsson.se

INTO THE IP SPACE!

The German IP market is booming.

Wanna join the ride?

The German IP market is already Europe's largest and it is estimated to grow enormously. In Germany, Ericsson has established a Customer Unit focused on ISP's and IP Carriers. The unit has three teams for Sales, Marketing and Product Management.

We need highly skilled enforcement to attack the market. Face the challenge and get into the IP space.

New Account Manager

The New Account Manager has the responsibility to:

- hunt for new customers and business
- establish business with the new customers
- be the commercial interface to new customers
- plan short and long term business with new customers

You have a background from account management, business management or have the experience of working in an ISP/IP carrier organization. The persons applying have a broad knowledge of telecom and/or

datacom solutions and a good understanding of how the customers generate their business. Furthermore the persons should have the high motivation level to position Ericsson solution in a very challenging market.

You have a team oriented personality and very good communication skills. German language skills is an advantage.

Key Account Manager

The Key Account Manager has the responsibility to:

- handle all the business with the customers
- generate new business with existing customers
- be the commercial interface to the customers
- optimize the margin on the business with the customers
- plan short and long term business with the customers

A Key Account Manager has the responsibility of 3-4 accounts. You have a background from account management,

business management or have the experience of working in an ISP/IP carrier organization. You have a broad knowledge of telecom and/or datacom solutions and a good understanding of how the customers generate their business.

You have a team oriented personality and very good communication skills. German language skills is an advantage.

Customer Solution Manager

The Customer Solution Manager has the responsibility to:

- define solutions together with the customers optimizing their business
- secure optimized profits for Ericsson together with the Account Managers
- be the link to different product management organizations in Germany and abroad

A Customer Solution Manager works closely on 4-6 customers. You have a background from customer solutions management, business management or product management in the datacom/telecom areas. The solutions normally consist of backbone

(e.g. ATM, WDM), voice/multimedia over IP, management, customer care, interconnect and customer service solutions combined with total customer solutions.

You have a team oriented personality and very good communication skills.

For more details contact:

Stefan Reuther
E-Mail: Stefan.Reuther@ericsson.com
Phone: +49 211 534 4770

or

Hans-Jürgen Vratz
E-Mail: Hans-Juergen.Vratz@ericsson.com
Phone: +49 211 534 1441

Ericsson GmbH
Fritz-Vomfelde-Str. 26
D-40547 Düsseldorf
Germany

Make yourself heard.

ERICSSON 

ERICSSON RADIO SYSTEMS AB, KISTA

BMOG (ERA/LI/A) has established a regional office in Kuala Lumpur to support its business in Asia-Pacific. This office is supporting both new and existing customers and is now looking for the following staff.

**Business Manager
New Accounts**

● Together with our Market Units you will develop account plans, market strategy and pricing structure for new accounts. You will also assist the Market Unit in securing resources for successful proposals and negotiations. You shall also be prepared to assist in contract negotiations and be a member of the Core3 team. Experience: At least 5 years of marketing experience, preferably in Asia-Pacific

**Marketing Manager
Intellegent Network/
Value Added Services**

● You will be responsible for promoting products and technical solutions for IN and VAS for all customers in the region. You shall also be prepared to justify the investment in VAS/IN by working closely with the customer in developing the business case. Experience: Cellular experience and 3 years in IN/VAS

Marketing Manager GPRS

● Most of our customers are planning to implement GPRS. You shall support them in finding the appropriate technical solution and also to provide input to develop the business case. Experience: At least 5 years of cellular radio and marketing experience.

UMTS Marketing

● The regional office will also set up a team responsible for getting new UMTS accounts. This effort will include marketing activities both towards existing customers and new customers. You shall be capable of translating the technical specifications into clear and concise commercial arguments. During the coming year Ericsson is participating in many conferences, fairs and exhibitions where we will communicate our UMTS solutions. Experience: At least 3 years of cellular experience. Its essential that you are a good speaker.

**Manager Business
Analysis UMTS**

● The opportunities with the 3rd generation of products are many-fold. Our customers are requesting Ericsson to assist them in building a business case for the new generation of products and to justify the investment in the new technology. Experience: You must have good insight into the business case of the operator - a knowledge you probably have got by working for an operator. Good working knowledge of Excel and some product knowledge.

Technical Manager UMTS

● The new technology arising from 3rd generation of products will require thorough explanations of the new systems both on the radio side as well as the core network. You will make presentations and write proposals in close co-operation with the MU. Experience: Cellular experience and/or data communication experience for at least 5 years.

QUALIFICATIONS FOR ALL POSITIONS

For all positions its essential that you are open-minded and flexible, as the dynamics of the market place and in particular working with new accounts and new products will require that you adapt to the actual market situation. You must also be able to work with people of many nationalities and in various positions. The job requires fluency in spoken and written English. The team is small so you are expected to be flexible in order to meet new challenges. Probably you have a Masters degree or Bachelors degree in engineering or business administration. Its also a merit if you have experience of the Asia-Pacific market.

For the UMTS positions a few months of introduction to UMTS will be held in Kista in order to become familiar with products/marketing messages and also to establish contacts. You must also be prepared to travel extensively in the region.

Contact: Mats Bosrup, +60 3 708 7336 or +60 12 290 0636, mats.bosrup@era.ericsson.se Application: ERICSSON REGIONAL OFFICE IN MALAYSIA, Ericsson Radio Systems AB, KI/ERA/LI/HA Lise-Lotte Ramneby, 164 80 Stockholm, lise-lotte.ramneby@era.ericsson.se.

**ERICSSON EUROLAB
(EED)HERZOGERTH/AACHEN, GERMANY**

CSS International Supply within CSS Operations at EED are looking for a candidate to take the role as

**Product Introduction
Manager**

● for the combined CSS R9 and UMTS project. CSS is responsible for the development, deployment and support of all GSM/UMTS switching products.

Product Introduction responsibilities involves to drive the selection of a suitable FOA customer for PU CSS considering all technical and commercial aspects of all Product Units delivering parts of the UMTS total offering; to plan, assign, execute, control and report all CSS FOA Customer activities within the project.

FOA activities are: Customer Verification, Acceptance, Site Implementation and Support executed within the Product Line and FOA customer owning ASO (Support Office); to coordinate with other Product Units, part of the total UMTS system offering, and find best practices between the PUs' how to deploy the

R9/UMTS products as a system to the FOA customer and possibly a number of "first wave" customers.

The PI role is a part of the Main CSS Indus project having the responsibility for all Post System Verification activities up to General Availability. The PI works closely with the Indus Project manager, Main project manager, other Product Units PIs' and FOA ASOs'. The PI position is within EED/X/YT - CSS International Project Office for SW Supply.

We are looking for a candidate with experience from AXE development projects and who has worked with customers regarding SW supply, for mobile systems.

Switching application experience in particular would be a merit.

The candidate shall have Project management experience on quite a high level and must be familiar with the SW Supply activities involved for a development FOA. The work involves frequent contacts to a number of internal Ericsson functions, both technical and commercial and also frequent customer meetings.

He/She must be fluent in english, have good presentation skills, have a drive to deliver results with many organisations involved, be able and like to have many simultaneous activities, work excessive hours if required and handle quite a few trips within and outside Europe. He/She must also have a solid background in AXE technology. Experience of UMTS and GSM is a merit.

Contact: EED/X/YTC, Human Resources Gustaf Oscarson, +49.2407.575-203, Gustaf.Oscarson@eed.ericsson.se or Simon Seebass, eedsims@eed.ericsson.se +49.2407.575-163

**PLM IN CSS/GSMEED
HERZOGERTH/AACHEN, GERMANY****Packaging Group Manager**

The Product Line Maintenance section takes central responsibility for the Worldwide CME20 Switching System. It is considered as the primary competence centre for CME20 SS. The PLM packaging group is working in the following areas: Organisation of a competent resource pool for ongoing and upcoming ASR (Application System Replacement) work during Function Test and INDUS of the major releases of CME20 SS, Package work for intermediate CME20 SS releases.

● This comprises compilation of the package, verification of functionality, development and verification of the chosen upgrade procedure and support for FOA activities in the ASO as well as technical coordination with UAB who deliver the APZ platform for the CME20 SS systems.

Corrections and functional upgrades must be negotiated with UAB and introduced into the spectrum of switching system releases. Consolidating and expanding the current remote competence level of the group and keeping a key position in a fast developing remote world will be the 1999 focus of the remote activities is crucial.

Line management activities include assignment of tasks, active career development, people management and development of the groups scope of responsibility.

As a suitable candidate you should bring in an understanding of function change procedures as well as basic GAS product handling principles, a good understanding of customer expectations and of PLMs responsibility, a network with the CSS supply and support organisation and a good cooperation with other Product Lines. Previous line or project management experience is desirable.

**Senior Product Line
Maintenance Tester**

● Your contribution to the packaging team is key position with minimum 3 years testing experience in a AXE mobile switching systems in a maintenance or support organisation. You need a sound background in AXE test environment handling and IOG/APZ operation and maintenance, ASR competence, ability to drive improvement and change, effective teamwork and coaching of less experienced colleagues and an interest to participate in studies for new releases.

Opportunities for travel, networking, personal and technical development are outstanding. Watch yourself make a global impact with your efforts.

Contact: PLM Section, Human Resources, Elke Busch, elke.busch@eed.ericsson.se +49.2407.575-357 or Simon Seebass, simon.seebass@eed.ericsson.se +49.2407.575.163

**ERICSSON EUROLAB DEUTSCHLAND GMBH,
GERMANY****Experienced Firefighters,
Troubleshooters,
Support Engineers and
Testers needed for GSM SS
node HelpDesk**

We are key players in the GSM support structure. Join our international team, come and work in a demanding environment with the latest functions on the fastest growing AXE application. We are looking for experienced personnel (4+ years) who can participate in:

● Technical support for FSC/ASO/PLM/TCM/INDUS/DESIGN. FOA Support, Hot TR Troubleshooting. Emergency correction production. Correction testing. Technical consultancy. Global support co-ordination. Negative testing. Function testing. Taskgroup activities, Root Cause Analysis, Technical prestudies. Feedback into UMTS development.

Develop your skills and network here with us. We are regarded as the primary competence centre for GSM Switching System support. We work closely with all worldwide GSM support organizations, with the most demanding operators at network/system/function level.

We tackle the high impact problems that affect the worldwide GSM Switching System. We work closely with Design and development organizations to verify and implement new functions.

Opportunities for personal and technical development are outstanding, also are the opportunities for worldwide contact networking. Watch yourself make a global impact with your efforts.

Get more info on us from our homepage:

<http://www.eed.ericsson.se/services/eed-x-sl/>

You should demonstrate a solid AXE background and a determination to tackle problems and meet new challenges.

An openminded and flexible attitude and the ability to work well in a team environment are important personal qualities.

You should also show good written and verbal communication skills. Some experience in the IN area could also give you the edge.

Contact: EED/X/SLHC, Human Resources, Russell Hegg, eedruh@eed.ericsson.se +49.2407.575-668 or Simon Seebass, simon.seebass@eed.ericsson.se +49.2407.575-163

**CSS/GSM OPERATIONS, EED,
HERZOGERTH/AACHEN, GERMANY****Project Manager For Rapid
Product Change (RPC)
related projects**

The CSS/GSM Operations has the overall responsibility for the Circuit Switching System (CSS) in all GSM based applications. This covers all classical GSM implementations for the different frequency bands: GSM 900, GSM 1800 and GSM 1900. In addition CSS will play a key role in introducing the 3rd generation mobile systems, UMTS, on the world market.

● The main tasks and objectives will be to co-ordinate all RPC development within CSS, to have a very good understanding of all the evolution and business case of each and every RPC developed, to have the fully control of the RPC in both TTM and TTC, to establish and monitor an RPC project, to cover all the RPC activities, irrespective of the organisations involved and to update the RPC process.

In this position you will gain a lot of insight on how CSS plans, organises and runs projects. You will learn which organi-

sations are involved in the decision making and how their roles and interfaces are defined.

Thus acquiring valuable competence and knowledge for future career opportunities.

As a project manager you will need strong initiative, good planning, co-ordination, and communication skills and the nature to "never give up". Depending on your individual expertise we may consider an expatriate contract.

Contact: Human Resources, CSS/GSM Project Office EED/H/R Simon Seebass, e-mail: eedsims@eed.ericsson.se +49 2407 575 163 or EED/X/RJC Jan-Owe Johnsson, e-mail: eedjoj@eed.ericsson.se +49 2407 575 7872

ERICSSON LEBANON**Account Manager**

● Ericsson Lebanon is looking for an Account Manager in Marketing (New Account Management Division).

As an Account Manager you will be responsible to identify and analyze business opportunities, propose and prepare marketing strategies. You should have the ability to establish and maintain customer contacts, make market and competitor analysis and prepare commercial offers that are in accordance with Ericsson's policies, strategies & plans.

For this position we need a person whose profile meet the following requirements: BS in Electrical Engineering or MSc. in Telecommunication &/or MBA Level. Strong Technical background in Telecommunication Solutions. Good Experience in Marketing & Sales. Proven Sales Track. Very Good Communication Skills. Fluent in English, Arabic & French is a plus.

Contact: Antoine Nehme - NAM Director, +961 3 34 88 87. Application: Christine Andrea - Human Resources Manager, E-mail: xtine.andrea@stl.ericsson.se or Antoine Nehme - NAM Director, E-mail: antoine.nehme@stl.ericsson.se

THE MU CARIBBEAN JAMAICA**General Manager - Jamaica**

The MU Caribbean is responsible 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, Jamaica and Curacao. The General Manager we are looking for will be heading our office in Kingston, Jamaica and be responsible for our activities towards customers in Jamaica and Grand Cayman. The office is responsible for sales and marketing, im-

TeMa Workshop

September 21-23 1999

Location: Ericsson Research Canada in Montreal

Organizer: Johan Wallin from PU OSS

Welcome to the 2nd **TeMa** conference. The discussions and topics covered will be on the Management of 3G Networks and shared vision for Ericsson's Telecom Management Business.

September 21st-22nd: Presentations and discussions

September 23rd: Visits to certain Telecom operators in the Montreal region (limited space).

The invitation is targeted mainly to the System and Product Managers, System Engineers and Senior System Developers working in the Telecom Management business. The workshop is free of charge (transportation and accommodation not included).

Please **pre-register** by sending an email to TeMA@lmc.ericsson.se. Registration for the hotel at the same location as the workshop should be done no later than August 20th 1999. Registration for the attendance at the workshop should be received prior to September 07th.

For further information on the **TeMa workshop** itself, contact Johan Wallin at 514-345-7900 ext. 5575, fax 514-345-7982 or by email: Johan.Wallin@Ericsson.Com. For logistics information, contact Isabelle Veronneau at the same phone number (ext. 2095) and fax or by email: Isabelle.Veronneau@lmc.ericsson.se

plementation and services of Ericsson for wireline and wireless products.

● The market is in expanding phase with new licenses to be issued and opening up for new product areas. This will be a challenging opportunity for a dynamic and entrepreneurial person. As many different products are marketed a broad experience in different areas is necessary. A keen interest in customer relations and business orientation is of importance. You also have excellent leadership capabilities.

Contact: President MU Caribbean, bo.carlsson@ericsson.com, +1 787 758 1770 ext. 222 or HR-department, kerstin.efraimsson@era.ericsson.se +1 787 758 1770 ext. 242 Kerstin Efraimsson HR-department, Ericsson Caribbean officephone: +1 787 758 1770 mobile: +1 787 616 6420 email: kerstin.efraimsson@era.ericsson.se

NIPPON ERICSSON K.K. - NRJTAC, JAPAN

Engineer & Senior Engineer

● We are looking for two ITAC Engineers and one Senior Engineer to work in Japan (Shin-Yokohama), which is one of the largest and fastest growing wireless markets in the world.

Main responsibilities: Assists Regional Co-ordinate and ITAC engineers with technical issue. Leads and participates in customer meeting. Provides assistance to ITAC Engineers and Technical assistant. Transfer knowledge within the ITAC group and Regional offices. Develops processes within the responsibilities of the ITAC organization and towards other interfaces. He/she applies well-established methods, tools and techniques to solve problems of limited complexity-similar in nature but varied in detail.

Additional requirement for ITAC Senior Engineer He/she is often required to work in parallel on a number of tasks. Most responsibilities and decisions are made within set guidelines and procedures. The ITAC Engineer plans own work to meet clearly specified objectives. Provides leadership within the ITAC group.

Requirements&Tasks: The position requires applicants to have a B.Sc. Computer Science, B. Electrical or Electronic Engineering, or experience/qualifications deemed to be equivalent. Four years relevant job experience. Good knowledge of English, good knowledge of Ericsson processes and procedures, in particular solid, documented, experience from Customer Support and HW Implementation. Prepares, adapts and verifies implementation instructions for expansion and upgrade of CMS 30 nodes.

Ability to review other colleague's documentation. Ability to improve products and processes within own control and aid others in such improvements. Prepares, adapts and verifies instructions for the installation test of CMS 30 nodes. Verifies CNI, ASR and CNA implementation instructions that include the addition of new HW into a CMS 30 node. Good telecommunication knowledge, e.g. telephony switching principles, traffic concepts, telecommunication networks, signaling and product functional demands understanding of the process flow of products from requirement to delivery, implementation and service.

ITAC Engineers duties consist of handling, implementation and verification throughout the HW implementation process and/or analyzing impacts on the customers network. Additional requirement for ITAC Senior engineer Ability to review other colleague's documentation. Ability to improve products and processes within own control and aid others in such improvements.

Contact: NRJ/ST/FC Stjepan Belcic, ITAC manager Phone +81 45 477 5571, E-mail: stjepan.belcic@nrj.ericsson.se or NRJ/STC Michael Kelly, Department manager, E-mail: michael.kelly@nrj.ericsson.se or HR Thomas Ahberg, Phone +81 45 477 503, E-mail: thomas.ahberg@nrj.ericsson.se

NIPPON ERICSSON K.K. - JAPAN

MSC Tester

Tokyo Network is composed of 10 MSCs, 3 TMSCs and 3 HLRs. A big expansion project is ahead and we need to strengthen our MSC tester team. For that we need:

● Experienced MSC tester to our Network Center in the Tokyo Region

The work includes: Testing of new MSCs and expansions in live switches, BS DT loading, testing and BS rerouting, AC-A and CN-A rollouts in the network. Another task is to transfer know how to our local MSC testers. Experience in IOG20 and new BYB 501 is required.

Application: dris.jirani@nrj.ericsson.se

ERICSSON EUROLAB DEUTSCHLAND GMBH, GERMANY

Experienced AC-tester for global support of the NO.1 AXE Application

The product line maintenance section at EED, Herzogenrath, Germany takes central responsibility for the world wide CME20 switching system. It is considered as the primary competence centre for CME20 SS.

● REQUIREMENTS: testing/verification, PLEX and ASA experience, test system knowledge, IN and tool experience is an advantage, to be flexible and able to work under pressure, to be

self-motivated, to work easily on your own and within a team and to achieve goals and customer requirements.

You have at least 3 years of testing experience in AXE mobile switching. Your main task is to test the correction in all the releases R7,R8,R8s,PRA,HWM, use test system to trace the problem in test channel and transfer your knowledge to less experienced people in the group. Travelling at short notice as an integral part of the job,

Contact: EED/X/SLAC Human Resources, Nasser Farhadi, eed-naf@eed.ericsson.se +49-2407-575-409 or Simon Seebass, simon.seebass@eed.ericsson.se +49-2407-575-163

THE PERFORMANCE MANAGEMENT DEPARTMENT OF THE CORE PRODUCT UNIT APPLICATION CORE (CAPC) AT EED AACHEN, GERMANY

Process Engineer.

We are responsible for the CAPCs performance improvements and performance control. We are a competence center for the operations of CAPC international. We are looking for people who like to push improvements of methods, tools and processes.

● You will gain deep understanding about the CAPCs operations and be driving improvements in the CAPC organisation. You are responsible for the engineering of our future design methods and development environment.

As a suitable candidate, you should have at least two years of software design or process engineering experience within Ericsson and interest in project management. Being familiar with the CAPC organisation would be an advantage. This position implies the opportunity to travel and you should see this job as a challenge to establish a world class environment.

Methods Coordinator

● You will be leading the change of our operational improvements into our development projects. You will baseline and monitor the processes used in the CAPC organisation, investigate new tools and prepare for a world class work environment.

As a suitable candidate, you should have at least two years of software design or process engineering experience within Ericsson preferably within CAPC. You should be communicative and a good team player. Any previous experience with methods, audits and project work is appreciated.

Contact: Human Resources, Karsten Strecke, eedkst@eed.ericsson.se Dial: +492407575210 or CAPC Process Engineering, Simon Seebass, eedsims@eed.ericsson.se Dial: +492407575-163,

NIPPON ERICSSON K.K., JAPAN - NRJ

IN and Switching Support Engineer

● We have now a vacant position for an experienced IN and switching Support Engineer to work with CMS30 (PDC standard). Your work location will be at our regional office in Nagoya.

The candidates shall have experience in trouble shooting, IN and SMAS upgrades and updates, and trouble reports handling. Previous experience in CMS30 is a plus. The candidates will have daily customer contact and participate in regional emergency service.

The candidates shall be fluent in spoken as well as in written English. Japanese language skills are a plus. Transfer of competence to local staff is one of the most important tasks. Proven skills in this area is required.

Previous experience with customer interface is a requirement. We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a long-term contract to the right person and starting date as well as length of the contract is negotiable.

Application: Mikael Sjöberg NRJ/DN/VC, Phone: +81 52 323-6547, Fax +81 52 323-3358, mail: mikael.sjoberg@ericsson.co.jp

ERICSSON TELECOMMUNICATIE B.V, THE NETHERLANDS

Technical Writer

The department ETM/BL/RU is within the Business Line Research and Development responsible for the development of software applications made in C++ and JAVA. ETM/BL/RU is looking for people who prefer to perform optimally in a professional team. Within a worldwide operating product unit, we are responsible for developing FOS, an application on the Adjunct Processor (AP) that formats charging data and provides it to post-processing systems. The number of applications on the AP will further increase over time.

● Further, we shortly became responsible for setting-up an "application platform" on the AP based on software reuse. We use Object-Oriented development practises and a proprietary (home made) development process (IDIOM). This process is currently being used outside the department and also in foreign Ericsson centres.

This way of work together with our internal culture has led to a Capability Maturity Model level 3 and important parts of level 4 are implemented. Herewith we have not only a leading position in Ericsson worldwide, but also within the European software industry.

We are organised in self-steering teams, because we believe that eventually that is the most efficient, but also providing a working atmosphere. Teams are besides developing products also responsible for the detailed planning, for competence build-up and for developing as a team. Within the team every individual performs several tasks, what leads to a varied work package. Also contacts outside the team are of a crucial importance.

ETM/BL/RU guarantees a pleasantly open working environment, focus on personal development and challenging innovative work. Feel challenged and drop by for an orientation.

As Technical Writer you bridge the gap between technique and the end user. Since you have the ability to look at our products with a user's view, you are able to explain the features of our software in a structured and user friendly way. You obtain the knowledge of these features by a close contact with the software designers.

In order to realise this achievement, you have a higher education. On top of that you are a (near) native English speaker. Preferably you have experience in a similar position working for a vendor of technologically advanced products. You have a strong ambition to strengthen your knowledge in the field of information and communication technology. Finally you are characterised by a pro-active attitude and excellent communication skills.

Contact: Rob Breumelhof, phone 31 161 24 7002, email: rob.breumelhof@etm.ericsson.se

GUC-GUANGZHOU, CHINA

Senior Test Engineer

● Main Responsibilities: R6.1 to R7.0 Upgrade. APZ Replacement. Mentoring and training local engineers in the above tasks. Planning and coordinating a team of engineers in the above tasks. Technical interface with GMCC Customer Unit for project related issues

Job Requirements: AS replacement skill. APZ replacement Data transcript for GSM switches. MTUP and MFC signaling skill. Trouble shooting skill in relation to the above

Senior BSC/BTS Engineers

● Main Responsibilities: TR, AC, EC handling AC-A, EC-A package assemble and verification. ASVTMSTP handling. FOA Second line Support

Job Requirements: Applicant should have 5 years experience with AXE. Minimum 3 years working with supply activities. BSS experience is a MUST. BSC trouble shooting experience Application System verification experience. APZ, IOG experience

Senior Support Engineer – TACS/AMPS

● Main Responsibilities: Knowledge transfer. CSR handling. Trouble shooting, on-site and off-site. Emergency handling, on request

Job requirement: Work experience in either a product line organization or in an ASO/FSC (or similar) support organization. Good knowledge of TACS system, mainly in Switching. Handling of emergency, e.g. charging stoppage, recovery of exchanges, etc. IOG trouble shooting knowledge. AMPS system knowledge. Being able to act as a mentor

Senior Support Engineer – GSM

● Main Responsibilities: Knowledge transfer. CSR handling. Trouble shooting, on-site and off-site. Emergency handling, on request

Job requirement: Work experience in either a product line organization or in an ASO/FSC (or similar) support organization. Good knowledge of GSM system, mainly in BSC. Handling of emergency, e.g. charging stoppage, recovery of exchanges, etc. IOG trouble shooting knowledge. MSC system knowledge. Being able to act as a mentor

For more information for position 2-4, please pay attention to our job ads. on CONTACT Issue 11 in early July.

Contact: Michael.Lou@guc.ericsson.se or, Tel.No: +86 20 85538868-20659 Fax No.: +86 20 85536191/93

TELEFONAKTIEBOLAGET L M ERICSSON, TECHNICAL OFFICE, UAE

To cater for the rapid network expansion, as well as being prepared to give full support to the GSM based satellite communication system (Thuraya), Telefonaktiebolaget L M Ericsson, Technical office, UAE is looking for the following:

1 System Expert, 1 IOG Expert, Support Engineers to FSC and/or CS01 and IN Support Engineer

● The ideal candidates should be familiar with performing first line support including roll out of SW, updates and upgrades. They should be able to handle trouble shooting, attend to Trouble Reports and Customer Service Requests.

The system expert should be able to manage and co-ordinate network investigation on very high technical level including resolving complex problems and provide technical advice and assistance to the customers as well as to Support Engineers and Management. The IOG expert candidates should have his/her major area of competence on IOG (IOG11 and IOG20).

Contact: Petar Knez, email: Petar.Knez@tku.ericsson.se mobile: +971-50-6126897

Candidates with interest in the Satellite field should be prepared to participate in the implementation project, to achieve the satellite specific experience before commercial launch. For all positions it's required to have a thorough understanding of working methods, processes and procedures and to have a strong focus on customer relations and customer satisfaction.

Contact: Zoveb Altaf email: era.erakumsc@mesmtpse.ericsson.se mobile: +971-50-6420319

In candidates are preferred to have high knowledge and experience from local7, Transgate 3 with IN 2.1 function, CCITT No. 7 signaling and IN protocol, SDP. UNIX and SMAS knowledge is an advantage.

Contact: Mats Wiorek email: Mats.M.A.Wiorek@tku.ericsson.se mobile: +971-50-6130712

Product Manager – Wireless Data & IP systems, services and products

● The Selected Candidate would be responsible for collecting information about future systems, services and products, would administer road shows and plan the strategic marketing and sales activities. He/she would also be responsible for the planning and building up of key competence at the local organization.

Contact: Jerry Carlson email: jerry.carlson@era.ericsson.se mobile: +971-50-6421528. Applications: Human Resource Manager, Miss Kristina Lindgren att: Kristina.Lindgren@tku.ericsson.se or Miss Kristina Lindgren, P.O. Box 3704, Abu Dhabi U A E

NIPPON ERICSSON K.K. - JAPAN

Expert AXE/UNIX Trouble Shooters CMS30 System

● Candidates should have well proven trouble-shooting skills in any of the following areas:

APZ / IOG-11 or 20APTISUPRADIO (MBS/MRS)UNIX

Our responsibilities cover the following areas:

System verifications(method development)ASR (compatibility and regression testing)CNA Production and Testing ACA production and testing 24 HR emergency supporttrouble shooting TR,SSW implementation project support EC-A, SC-A, TC-A handling UNIX products(OSS, MXE,SMAS,Packetdata products)And excellent conditions.

Application: Thomas Ahberg NRJ/HP-Human Resources, E-mail: thomas.ahberg@nrj.ericsson.se

TELEFONAKTIEBOLAGET LM ERICSSON, TECHNICAL OFFICE SYRIA BRANCH

AXE Support Engineer

● We are looking for an experienced AXE Troubleshooter to work in the Technical Support Department in Syria. The network presently consists of 13 switches and we are about to start the implementation of the new contract of additional 1 million lines. The job position is open on a short-term basis with possibility for a long-term contract.

The successful candidate shall be the main technical expert, and shall be willing to transfer knowledge to the local engineers. Requirements: Must have at least 4 years experience with AXE. Proven experience in SW/HW troubleshooting in live sites. Experience with MHS/ACH/C7/ISDN/PLEX/ASA. GSM knowledge is a plus.

Contact: John Robehmed, Technical Support Manager, Tel: +963 11 613-3028, fax: +963 11 611-3138, e-mail: john_rob@hotmail.com

ERICSSON RESEARCH CANADA - LMC, MONTREAL

Customer Interface Representative

Customer Interface Representative Ericsson Research Canada (LMC) has the mandate for software development for the global wireless standard, TDMA. We are developing next-generation software for future wireless networks, handling datacom and Internet services. We are also developing new network and system architectures based on leading edge open systems technology. In addition to serving as a major R&D site, Ericsson in Montreal also houses the Technical Assistance Center (TAC1) for the TDMA system. The Technical Assistance Center provides 24-hour service for all national and regional cellular networks in the Americas, Canada and parts of the Caribbean.

● As the primary technical liaison for a North American Customer you will be using your proven customer skills and technical aptitude to provide a single point of contact for all support issues.

Through your outgoing personality and continuous contact with the customer, you will develop close ties with all levels of the customer's management and technical staff as well as gain valuable experience of the cellular business. Some of CMS8800 corporate customers are AT&T, Cantel, Bell south, South Western Bell, Cable & Wireless.

The challenges of the position come in balancing technical, managerial and business issues within our corporate customers as well as within Ericsson. As customer Interface, one is challenged with handling the customer's business and operations to their own benefit, whilst facilitating support internally; On the Ericsson side the challenge comes in impacting support internally in order to improve our customers' satisfaction.

The responsibility also includes promoting changes in design

and systems to meet our customers' needs in escalations and new requirements. Furthermore, you will be part of a highly trained Outage Team required to manage a team of engineers responsible for the immediate recovery of cellular systems in outage situations. These responsibilities cover a wide range of products including AXE, OSS, Jambala, AP, CDPD and all other products supported by TAC.

Ideally you are an experienced Engineer, who has acquired a

good understanding of the TDMA or GSM standard and the CMS8800, or CMS40 product line. You have gained experience in the AXE-10, OSS and/or AP systems coupled with some experience dealing with corporate customers, and an overall knowledge of the Ericsson business.

This requires that you possess and develop very strong customer and people handling skills. The position requires excellent English, both written and spoken.

Come see why Ericsson Canada is the place to be, and gain valuable exposure to the telecom business world.

Contact: Gad Bensoussan, Office: +1 514 345 7956 or Mobile: +1 514 497 1458, gad.bensoussan@ericsson.com Application: Customer Interface Representative. gad.bensoussan@ericsson.com

Join the ERICSSON-IP Infrastructure Gigabit Routing Team!

In 1876, Lars Magnus Ericsson made his dream come true and opened his own little repair shop for telegraph equipment. Today Ericsson is a world leader in telecommunications. About 100 000 people work for Ericsson in 140 countries.

If you are interested in any of the possibilities offered below, we would like you to know that Ericsson's very advanced technologies have only one objective: to make it easier for people to communicate.

Wherever they are, whenever they want.

The business unit "Datacom Networks & IP Services" is responsible for solutions for datacommunications and IP services and we are now launching a number of exciting products and network solutions that dramatically will change the way telecom networks are implemented.

We are now expanding in Silver Spring, Maryland (just outside Washington D.C.).

April 13 1999 Ericsson acquired Torrent Networking Technologies Corporation, a supplier of high-capacity edge routers with dynamic traffic shaping capabilities (aggregation routers).

The new Ericsson unit has been given the name "Ericsson-IP Infrastructure". At Ericsson-IP Infrastructure you'll have the opportunity to go further and faster- to break the new wire speed barriers. Our top-flight engineering team has developed the most advanced Gigabit Routers for accessing The Edge of the New Internet. And that's just the beginning. At this moment we are some 80 people within our team. We are now looking for the best and brightest in the following areas to continue our expansion; Join us!

ENGINEERING

HARDWARE PROFESSIONALS

Senior Digital Design Engineers (Ref: SDD)

- Display a thorough knowledge of high-speed digital design (bus speed of 50 MHz, and individual interfaces running at Gigabit speeds).
- Must possess proficiency in designing custom logic (in FPGA or ASIC) to

manipulate and transfer data at high-speed.

- Candidates must be highly motivated and self-driven with an ability to lead projects and engineers.
- Experience with ATM, POS, Frame Relay or SONET required.
- Knowledge of IP, MPLS highly desirable.
- BSEE (or equivalent), minimum 5-7 years experience.

SOFTWARE PROFESSIONALS

Software Test Engineers (Ref: TE)

- Develop and execute tests for high-performance networking products.
- Verify system functionality, performance and scalability.
- BSEE/CS plus 3 years of related experience.
- Knowledge of WAN and LAN communications protocols.
- Familiarity with network test equipment, development environments and UNIX.
- Strong C background with scripting or test-generation languages (Perl or TCL).
- Experience with performance and protocol testing (BGP, OSPF, IS-IS)

Senior Software Engineers/IP Routing Protocols (Ref: SPE)

- Lead design and implementation of routing protocols.
- BSCS/EE or equivalent.
- Minimum 3 years of experience in software development in a C/Unix environment.
- Experience with IP networking.
- Knowledge of RIP, OSPF, BGP, DVMRP, PIM, SNMP, RSVP a strong plus.

Software QA Engineers (Ref: QE)

- Test newly developed router software protocols, features, capabilities and performance.
- Verify that programs conform to documentation, specifications, are stable, and bug free over wide ranges of network

system sizes, complexities and applications.

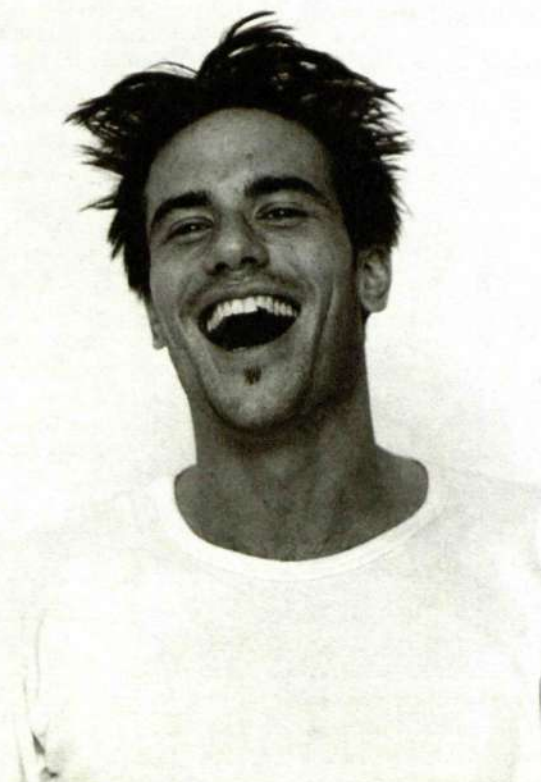
- BSCS/EE and 2+ years of experience in router development, router QA, or installation and configuration of complex router based networks.
- Experience with PERL or TCL.
- Ability to write test plans based on functional and design specifications.
- Knowledge of BGP4, OSPF, DVRMP or other routing protocols.

You'll enjoy a creative, cutting edge environment, an excellent compensation and benefits package, and the chance to go where no one has gone before.

So if you're up to the challenge, please email us your resume (ASCII text format only please!), quoting the Ref:code to: engpositions@torrentnet.com. Or send a fax to (301) 586-81111.

Please find information about Ericsson-IP Infrastructure: www.torrentnet.com

For additional HR information contact: Jan Malmqvist, phone +46 8 719 57 48, E-mail: jan.malmqvist@etx.ericsson.se



Make yourself heard.

ERICSSON 



Team Halti, the overall winners of TEO, from left: Harri Hollo, Pasi Ikonen, Dominick Arduin, Mika Somppi, Arto Lilja, all from Finland. Photo: Patrick Trägårdh

New phone meets challenge

The Endless Odyssey, a multi-sport race sponsored by Ericsson, is finally over. A Finnish team came away victorious after surmounting all the hardships over 3 days and 22 hours.

The contest was a good opportunity for Ericsson to showcase our waterproof and shock-resistant R 250s Pro telephone along with our GSM system which enables group communication," says Michael Dömstedt at Ericsson Sweden.

Ten teams competed over a period of four days at the end of June, making their way from Narvik on the Norwegian coast, to Sweden, ending up in Luleå on the Gulf of Bothnia.

650 kilometer race

Finnish Team Halti won the race by completing the course in 3 days, 22 hours and 14 minutes. The team covered 650 kilometers of varying terrain by running, riding, caving, rope climbing, hiking across bogs, kayaking and crossing glaciers.

Every team consisted of five participants, and had to include at least one woman. Four members of every team were required to participate in every event. This year's Odyssey included one all-female team, and

included was Karin Forsberg, a project manager at Ericsson Radio Systems. Karin, a former elite swimmer, has also spent many years cycling and running and has, more recently, also been kayaking and climbing in order to be able to handle all the events. Karin was very satisfied with her team's results.



Karin Forsberg

"This was the most fun I've had in any sporting event or competition. But it was, of course, also difficult. The 100 kilometer-long mountain hike was the most exhausting, and also the most difficult to plan in terms of gauging individual and team energy so that we would last the whole route. Nobody can be allowed to collapse from exhaustion."

Telephone gets approval

Each team and their assistant were equipped with Ericsson's waterproof and shock-resistant R 250s Pro telephones throughout the race in order to receive SMS messages regarding the position of other teams as well as to be able to call for assistance, should they encounter an emergency situation.

"The telephone clearly met with our approval. It withstood both jolts and water throughout the competition. It felt good to have it, in case something had happened to us," explains Karin Forsberg.

In addition to launching and testing the new R 250s Pro telephone, Ericsson was also demonstrating its GSM Pro system, a system that has been sold to South Africa, and which makes group communication possible.

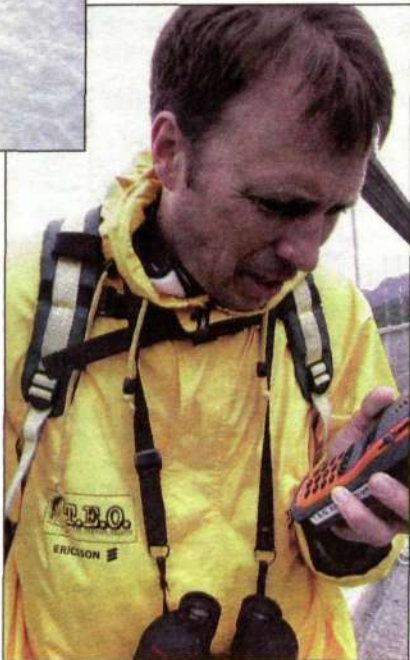
Representatives from several GSM operators were on hand to test and evaluate the system.

Ulrika Nybäck

ulrika.nyback@lme.ericsson.se



Erik Ahlström lowers himself down 70 meters from the Rombak bridge to the water. Everyone had to climb down the rope and then drop approximately 3 or 4 meters into 7°C water and swim to shore. After that there was a 30 kilometer kayaking course, 70 kilometers of cycling to Björkliden, a run to the caves and then a rope crossing over the Abisko canyon.



Erik Ahlström, race manager and head of The Endless Odyssey, checks his phone on the Rombak bridge.

UPCOMING

October 10-17: Telecom 99 + Interactive 99 in Geneva. The International Telecom Union's trade fair which takes place every four years. Ericsson will be well-represented and Contact will report from the fair.

October 18: The first races will take place for the huge sailing event Americas Cup in Auckland New Zealand. Ericsson is sponsoring the event.

October: The global Ericsson Internet community Zopps will be launched. Zopps is a meeting place on the web for Ericsson employees and their families.

www.zopps.com

UPDATES

July 7: Kurt Hellström was appointed new Ericsson president and Lars Ramqvist returned to the position of CEO.

July 23: Ericsson published its six-month interim report, which showed increased sales but reduced profit. The Ericsson share price rose slightly.

NEW ASSIGNMENTS

Patrick Boyeaux becomes new head of Ericsson in Morocco. He succeeds Harald Oberbeck. Patrick Boyeaux previously worked as new accounts manager in Morocco.

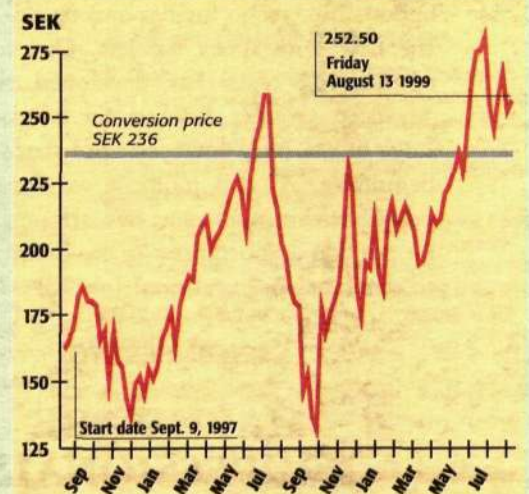


Patrick Boyeaux

Nael Salah is the head of the newly established Middle East regional office in Beirut. The objective of this office is to coordinate Ericsson's activities in the region.

Kjell Johansson becomes new head of Ericsson's Austrian company from October. He takes over from Rolf Nordström, who is to work with structure and marketing issues in the Europe, Middle East and Africa market area.

THE ERICSSON B SHARE



An Extraordinary General Meeting of shareholders on September 9, 1997, approved a proposed convertible debenture program. The conversion period extends through June 30, 2003. For additional information, access the web site: <http://inside.ericsson.se/converti.htm>

