contact

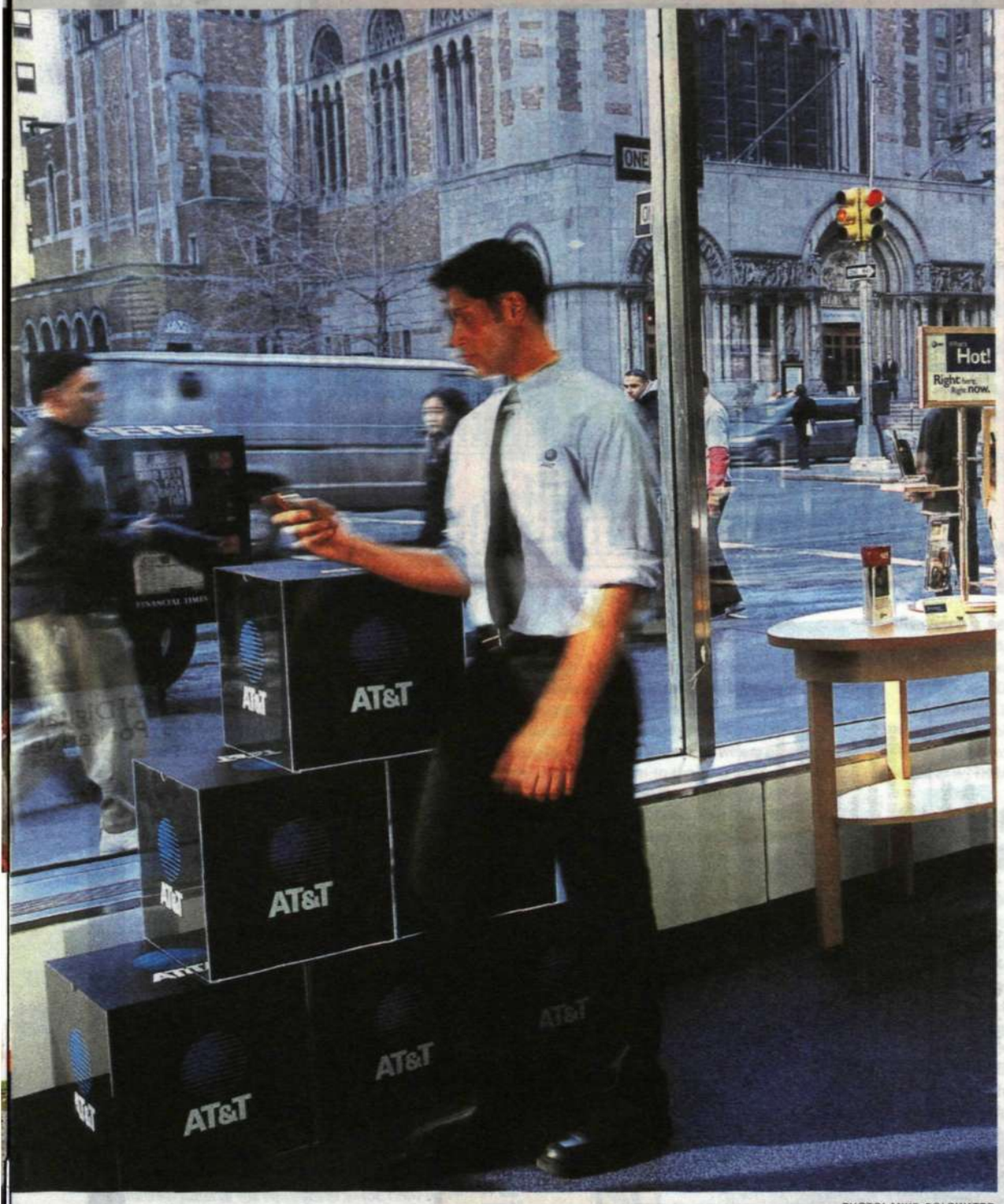


PHOTO: MIKE GOLDWATER

GSM strengthens position in the US

5

GRAPHICS: PAUES MEDIA

Weak 2001 for Ericsson

4

PHOTO: ECKE KÜLLER

Major opportunities for Nigeria

12–13

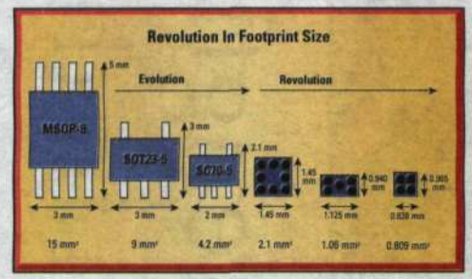
no. 2
February 7, 2002

THE PUBLICATION FOR ERICSSON EMPLOYEES ALL OVER THE WORLD

ERICSSON

National Is #1 In micro SMDs With 45 Individual Products And Counting ...

Actual Size
(4 Bump)



**We've Got You Covered.
Smaller Footprints, Unrivaled Design,
And Superior Manufacturing Support.**

National Semiconductor pioneered micro surface mount device technology. Today, we offer the broadest line of micro SMDs in the industry: Op Amps, Temp Sensors, Audio Amplifiers, Comparators, Power Management, References, Supervisory Circuits, and Timers. They offer a host of advantages over traditional leaded plastic packages. They're tiny. They're available in quantity. And, they're backed by National's top notch support team plus, a web site by and for engineers.

micro SMD Package

- The Die is the Package
- Saves PC Board Real Estate
- 0.5 mm Bump Pitch
- 0.9 mm Max Package Height
- Eutectic Bump Reflow to support Self-alignment
- Coplanarity Guaranteed by Process
- Epoxy Backcoating Provides Marking Surface and Edge Protection

Ease Of Manufacturing

- Uses Standard Surface Mount Equipment and Flow
- No Underfill Required
- Standard Pick and Place Accuracy
- Available in Standard 8 mm Tape and Reel
- Simplified PC Board Layout

Reliability

- Passes All Standard Product Reliability Tests: OPL, THBT, Temp Cycling, Autoclave and ESD
- Passes All Board Level Reliability Tests: Temp Cycling, Drop Test, Vibration, and 3-Point Bend Test

**National Semiconductor – First In micro SMD Packaging.
Still The Leader With The Most Comprehensive Family Of micro SMD Products Available.**

Product Type	Part Number	Description	Bump Number
Boomer Audio Amp	LM4820-6	1W Fixed-Gain Audio Power Amp	8
Boomer Audio Amp	LM4865	750 mW Audio Power Amp with DC Volume Control and Headphone Switch	8
Boomer Audio Amp	LM4872	1W Audio Power Amp	8
Boomer Audio Amp	LM4873	1W Stereo Audio Power Amplifier with Integrated Headphone Amp	20
Boomer Audio Amp	LM4877	1W Audio Power Amp with Logic-Low Shutdown	8
Boomer Audio Amp	LM4878	1W Audio Power Amp with Logic-Low Shutdown	8
Boomer Audio Amp	LM4890	1W Audio Power Amp	8 or 9
Boomer Audio Amp	LM4891	1W Audio Power Amp	8
Boomer Audio Amp	LM4892	1W Audio Power Amp	8
Boomer Audio Amp	LM4894	1W Fully Differential Audio Power Amp with Shutdown Select	9
Boomer Audio Amp	LM4895	1W Fully Differential Audio Power Amp with 6 dB Fixed Gain	9
Op Amp	LM358	Dual Single-Supply Op Amp	8
Op Amp	LMC6035	Low Power 2.7V Single Supply Op Amp	8
Op Amp	LMC8101	2.7V to 10V RRIO Low Voltage/Low Power Op Amp with Shutdown	8
Op Amp	LMV712	Dual Op Amp Offering RRIO 2.7V to 5V with Shutdown	10
Op Amp	LMV981	Single Op Amp Offering RRIO 1.8V to 5V with Shutdown	6
Power Conversion	LM2612	Programmable Step-Down Ultra Low-Voltage DC-DC Converter	10
Power Conversion	LM2787	Low-Noise Switched-Capacitor Voltage Inverter	8
Power Conversion	LM2931	100 mA LDO	6
Power Conversion	LM317L	100 mA Adjustable Linear Regulator	5
Power Conversion	LM431	Adjustable Precision Shunt Zener Reference/Regulator	4
Power Conversion	LM78L05	100 mA Linear Regulator	8
Power Conversion	LP2967	Dual 150 mA Ultra Low Drop, Low Noise LDO	8
Power Conversion	LP2980	50 mA Ultra Low Drop LDO	5
Power Conversion	LP2981	100 mA Ultra Low Drop LDO	5
Power Conversion	LP2982	50 mA Ultra Low Drop, Low Noise LDO	5
Power Conversion	LP2985	150 mA Ultra Low Drop, Low Noise LDO	5
Power Conversion	LP2985B	150 mA Ultra Low Drop, Low Noise LDO	5
Power Conversion	LP3985	150 mA Low Noise CMOS Ultra LDO	5
Power Conversion	LP3986	150 mA Dual Low Noise CMOS Ultra LDO	8
Special Function	LMC555	CMOS Timer	8
Supervisor	LM3700	Voltage Supervisor	9
Supervisor	LM3701	Voltage Supervisor	9
Supervisor	LM3702	Voltage Supervisor with Manual Reset	9
Supervisor	LM3703	Voltage Supervisor with Manual Reset	9
Supervisor	LM3704	Voltage Supervisor with Power Fail Input and Manual Reset	9
Supervisor	LM3705	Voltage Supervisor with Power Fail Input and Manual Reset	9
Supervisor	LM3706	Voltage Supervisor with Watchdog Timer	9
Supervisor	LM3707	Voltage Supervisor with Watchdog Timer	9
Supervisor	LM3708	Voltage Supervisor with Manual Reset and Watchdog Timer	9
Supervisor	LM3709	Voltage Supervisor with Manual Reset and Watchdog Timer	9
Supervisor	LM3712	Voltage Supervisor with Power Fail Input, Manual Reset and Watchdog Timer	9
Supervisor	LM3713	Voltage Supervisor with Power Fail Input, Manual Reset and Watchdog Timer	9
Temp Sensor	LM20	2.4V, 10 µA Analog Temperature Sensor	4
Temp Sensor	LM74	SPI/Microwire Digital Temperature Sensor	5

For Free Samples, Datasheets and More Information on Our micro SMD Family of Parts, Contact us Today at:
www.national.com/microsmd
or fax us at: +49(180)5 12 12 15

National Semiconductor
The Sight & Sound of Information

Key order to large CDMA operator

Ericsson has signed a contract with the largest CDMA operator in the US, Verizon Wireless, which is in the process of building out its 3G network for CDMA (known as CDMA2001X.)

Ericsson will deliver a key portion to Verizon's network AAA servers (Authentication, Authorization and Accounting) across the entire continent.

"We are very pleased that the largest CDMA operator in the USA decided to install our 3G technology, which is very cost-effective, into their network," says Åke Persson, head of Ericsson's business unit CDMA, located in San Diego.

"AAA solution is one of several nodes in the core network, but for Ericsson this has strategic consequence because it's our first contract with Verizon."

Ericsson's CDMA2000-solution for third-generation systems makes it possible for operators to easily migrate from today's 2G system cdmaOne, which is one of the fastest-growing standards, and currently serves over 111 million subscribers all over the world.

LARS CEDERQUIST
lars.cederquist@lme.ericsson.se

Åke Persson, head of Ericsson's business unit CDMA in San Diego is pleased with the contract.
PHOTO: ECKE KÜLLER

Contract with Vodafone

Multimedia Messaging Service, MMS, will be introduced in nine of Vodafone's European markets during the second half of 2002. This is the result of a global MMS contract recently signed by Ericsson and Vodafone Group Plc.

The countries where Vodafone will first launch MMS are Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the UK. This is Ericsson's first global MMS contract and is an important breakthrough when it comes to next-generation mobile services. Using MMS, it will be possible to send messages containing text, animations, photos and sound, between mobile phones.

"In cooperation with Vodafone, we are now taking mobile communication to the next level. MMS will whet the appetite for the possibilities that 3G has to offer," says Jan Lindgren, head of strategic marketing at Service Network and Applications at Ericsson.

In spring 2001, at the 3GSM convention in Cannes in France, Ericsson became the first company to demonstrate a complete MMS solution. This past autumn, the company demonstrated how users could send MMS messages from an MMS telephone to an "ordinary" mobile phone. Ericsson has also developed a prepaid solution.

"MMS utilizes an open standard. We're inviting various suppliers to test out MMS telephones in order to encourage its adoption as quickly as possible," says Jan Lindgren.

Ericsson will be offering MMS telephones in every price range by this spring. Following an upgrade, the T68 will also be MMS-capable.

GUNILLA TAMM
gunilla.tamm@lme.ericsson.se

PHOTO: ECKE KÜLLER

Ericsson equipment in London network

Oxford Street, Earl's Court and Kensington High Street are well-known areas of London. They are also among the locations where Vodafone recently replaced base stations in its GSM network in London. The operator has replaced its old equipment with new equipment from Ericsson at more than 720 sites.

In November, Vodafone UK began its replacement program for parts of the equipment in the GSM network that covers London. This applies to base stations and Base Station Controllers, the control units for base stations, which have now been replaced by Ericsson equipment after eight years of use. The new base stations that have been installed are of the RBS 2302 micro base stations. The control units for the base stations are in the same locations as the mobile switches. For subscribers, the most noticeable consequence of this replacement is better coverage.

The replacement of the equipment has been completed quickly, with a maximum of 13 sites being covered in a single day.

GUNILLA TAMM

Optimus replaces GPRS equipment

Ericsson's customer team for Optimus, an operator in Portugal, had an arduous but rewarding start to the New Year. Their task involved replacing equipment from one of Ericsson's toughest competitors. Portugal is the first country in which an operator has replaced the equipment in its GPRS network with equipment from Ericsson.

"Our success is partly explained by a combination of right timing, local presence, excellent customer contact and the substantial efforts made by everyone in our customer team," explains Lars Tofft, Ericsson's key account manager for Optimus.

Ericsson previously supplied equipment for the Optimus GSM network, and 3G deliveries are now under way. There are three GSM operators in Portugal and all of them have selected Ericsson as their supplier of 3G equipment.

Agreement with LG for technology rights

Korean electronics company LG Electronics has entered into an agreement with Ericsson that gives it the right to use Ericsson 2.5G and 3G platform technology in its consumer products. LG Electronics is one of the ten largest mobile phone manufacturers in the world and this contract strengthens Ericsson's position as a leading supplier of technology for mobile phones and handheld computers.

Cingular orders Jambala Mobility Gateway

America's second largest mobile phone operator, Cingular Wireless, has purchased Ericsson's Jambala Mobility Gateway. This solution enables Cingular to link its TDMA and GSM networks together as it transitions to a 3G network. Thanks to the Jambala Mobility Gateway, Cingular's mobile phone subscribers will be able to shift between networks, regardless of whether they have a GSM or a TDMA handset.

Global Customer Unit created for Hutchison

Hutchison Telecom, an operator serving markets on nearly every continent, has been named Ericsson's sixth Global Customer Unit.

"Hutchison is the world's most aggressive 3G operator. With them as a Global Customer Unit, we'll really make it happen for Ericsson and the whole industry," says Kinson Loo, appointed vice president and account executive for the new unit.

Toward its objective to become more customer-oriented and to match market needs, Ericsson created five Global Customer Units in August 2001. Hutchison now joins ranks with Vodafone, France Telecom/Orange, Deutsche Telekom, Telefónica and Telecom Italia Mobile (TIM).

Ericsson company number one in Shanghai

The Shanghai government has named Ericsson's local research and development company the "Number one software export company in Shanghai for 2001." President Paul Hughes is delighted and surprised that, among 1,000 other software companies, the Ericsson unit earned top recognition.

"I am very honored," said Paul Hughes. "This demonstrates RDC's high value to Ericsson's global R&D program and to Shanghai's hi-tech industry."

RDC is the acronym for the company, whose full name is Ericsson Communications Software Research and Development Shanghai Company Limited.

Bright future despite record loss

"This was the worst year ever," says Kurt Hellström, describing 2001.

"Naturally, I am not satisfied with the year-end report because of our substantial loss, but I am pleased that we implemented the Efficiency Program according to plan and that cash flow is positive."

The year 2001 is now history. It was the year when the telecom market collapsed. The year when Ericsson made a pretax loss of SEK 30 billion.

At the same time, the figures show that the company has achieved a number of important goals. Costs have been cut and cash flow has been turned into SEK 4.2 billion on the plus side.

"Many people didn't believe that we would manage to cut costs by so much, but we did. That was a positive achievement and it will pay off this year," says Kurt Hellström.

"It is also pleasing that we have succeeded in turning the cash flow around, especially because we did it by improving our operations. Only a small contribution came from the sale of assets."

One such improvement in operations is that Ericsson now ensures that it gets paid quicker. During the fourth quarter, invoices were paid within 88 days on average, compared with 102 days during the third quarter.

Although the market declined substantially, during the year with reduced order bookings as a result, Ericsson grew faster than its competitors in the systems sector.

"We have outperformed all of our competitors when it comes to systems business. This is particularly true of GSM, where we acheived nine percent growth – far more than any other company," says Kurt Hellström.

In addition, the loss-making mobile phone operations have now been placed outside Ericsson and it is believed that this area will make a profit this year.

In 2002, profit margins are the number one priority for all operations. During the year, the company will achieve a five percent operating margin, which may be regarded as a high target in view of the figure of minus eight percent reported for 2001. Ericsson's Chief Financial Officer, Sten Fornell, explains:

"We quite simply have to achieve this in order to maintain a positive cash flow. 2001 was about survival and the focus was largely on savings. Now we must concentrate on business and securing orders, without losing control of cash flow again."


Sten Fornell

Ericsson must make a profit despite the fact that there is no real growth in sight. On the contrary, Kurt Hellström foresees a considerable decline for the first quarter, which will lead to a loss of as much as SEK 5 billion.

"We have reason to believe that there will be a turnaround during the second half of the year, largely due to 3G. We anticipate that Ericsson will return to profitability during the year. This is completely possible assuming that market conditions do not change radically. This means that Ericsson will be a stronger company after 2002," says Kurt Hellström.

However, he believes that the growth figure for the full year will be zero, or slightly below.

On the subject of cutbacks, Kurt Hellström is making no promises.

"My goal is not to reduce the number of employees, but we have stringent objectives for the year and it cannot be ruled out that manpower surpluses could also arise this year," says Kurt Hellström.

LARS-MAGNUS KIHLSTRÖM
lars-magnus.kihlstrom@lme.ericsson.se

Limited bonuses to be paid

Since Ericsson achieved a positive cash flow in 2001, bonuses will be paid to the employees covered by the STI bonus program. However, the amounts will be strictly limited and Kurt Hellström will receive no bonus at all.

"My bonus is based on whether the company makes a profit and it didn't. I think this is the correct principle. The reason I requested that the Board change the bonus conditions was that I wanted all energy to be devoted to cash flow."

Early in 2001, it was decided that the bonus for 3,000 people would be based on whether a positive cash flow was achieved. This was necessary in order to extract Ericsson from the difficult situation in which it found itself.

"The bonus for those involved corresponds to less than 1 percent of the total payroll sum," says Kurt Hellström.

Information regarding any bonuses to be paid to employees covered by programs other than STI will be issued during February.

LARS-MAGNUS KIHLSTRÖM

Africa and India attractive markets

"China continues to be Ericsson's most important market in the Asia-Pacific region. The growth in the number of subscribers may have declined somewhat, but traffic growth remains strong," says Ragnar Bäck, head of the market area.

Another country in which he anticipates a substantial increase in mobile telephony is India, while Vietnam is also a market with growth potential.

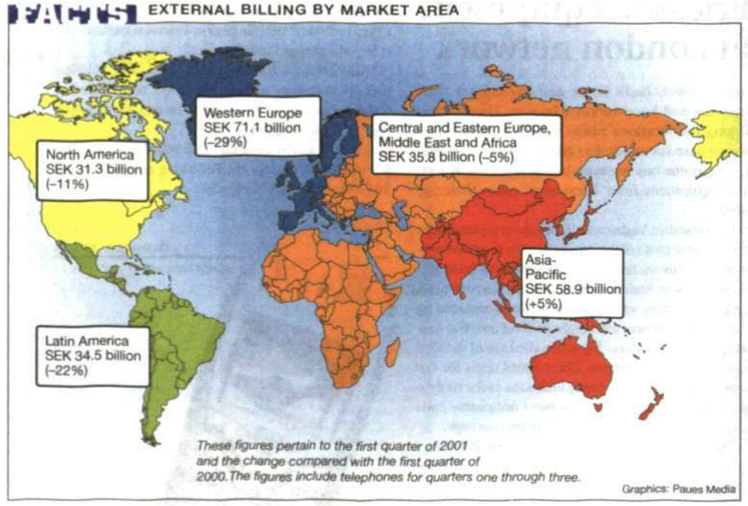
"The trend also seems to be moving in the right direction in Indonesia, Malaysia and Thailand. Ericsson has a sound position in Japan, but the Japanese economy has stagnated and this makes the future a little uncertain," he continues.

"Western Europe is problematic, since the operators there are being cautious about investments. However, it is positive that GPRS has started up and we are continuing to work on 3G deliveries," says Mats Dahlin, head of the Europe, Middle East and Africa market area.

He also says that the prospects for the Middle East and Eastern Europe appear favorable. Ericsson has now laid its foundations in Africa and developments there could be exciting. He regards the MMS contract with Vodafone as extremely important for starting up mobile Internet in the major European markets.

GUNILLA TAMM
gunilla.tamm@lme.ericsson.se

PAUES EXTERNAL BILLING BY MARKET AREA



Ragnar Bäck, head of the Asia-Pacific market area, foresees an increase in mobile telephony in India and also believes that the market in Vietnam could grow.

On-time 3G deliveries essential this year

Creating momentum in the Mobile Internet market, delivering 3G systems on time and making 2G extremely cost-efficient. These are the areas highlighted by Einar Lindquist, head of the WCDMA and GSM Mobile Systems business unit, as important tasks for 2002.

The reorganization and cutbacks in personnel made the autumn difficult for the business unit.

"It was a tough period, but we have put it behind us and are now looking ahead. Our new customer-related organization gives us an effective platform for our work," says Einar Lindquist. Although the autumn was laborious, there are positive signs. Intensive efforts made in such areas as accounts receivable have resulted in positive cash flow, which will continue to be a priority.

Regarding marketing, Einar Lindquist mentions orders from the major American operators AT&T, VoiceStream and Cingular. Their decision to opt for the GSM track, with GPRS and EDGE, as the route to the 3G future is extremely important. As a result, the US is taking a step closer to the Mobile Internet and Einar Lindquist believes that there could be something of a contest between Europe and the US to be first.

There is a huge focus on 3G in the telecom world at the moment and, for Ericsson, it is essential to complete the commitments that the company has and to do so within fixed time limits.

"With a 40-percent market share for WCDMA, it is important for the future that we meet the expectations that people have of us as a supplier," Einar Lindquist continues. "3G On Time" is one of this year's targets.

Although 3G is the focal point of the market's interests, second generation mobile telephony, with GSM, continues to play a major role and generate big money. Einar Lindquist believes GSM will be a major seller for many years to come.

Poorer market growth and intense time pressure make it necessary, however, to work even more cost-effectively on GSM. In addition to "3G On Time," "2G On Cost" is also an extremely important goal.

Creating momentum in the Mobile Internet market is the third of the business unit's most important challenges this year.


Einar Lindquist, Mobile Systems WCDMA and GSM

"During the fall, I learned to understand the opportunities offered by the Mobile Internet. We have many excellent products and solutions in various areas of Ericsson and now we are putting these together and customizing them so that operators can offer end users what are perceived as unique solutions. In this way, we can help our customers to make the most of their 3G investments," concludes Einar Lindquist.

GUNILLA TAMM
gunilla.tamm@lme.ericsson.se

Mixed reactions from market

Ericsson's year-end report for 2001 met with mixed reactions. However, despite the major loss, many analysts could see light at the end of the tunnel.

"The initial reactions were rather positive. The market in general is a little disappointed about the forecast, but that is the market situation right now," says Gary Pinkham, head of Ericsson's Investor Relations.

"Seasonally, the first quarter is weak, so this shouldn't have come as a surprise. However, this, in combination with extremely weak order books, comes a bit of a surprise," says analyst Håkan Wranne to Swedish financial daily, Dagens Industri.

No surprise

When the Stockholm Exchange closed on January 25, the share price had fallen by four percent. The loss did not come as a surprise to the stock market. The analysts largely agreed that there were positive aspects to the report.

My first impression was that it was worse than expected. But, on closer examination of the figures, there were quite a few favorable signals, such as the positive cash flow and the fact that mobile systems performed well," says Lars Söderfjell, an analyst at Sweden's Handelsbanken.

Analysts positive

"On the whole, the figures look favorable. The pretax loss was less than I had anticipated. Sales were higher and cash flow was decidedly positive," says Mike Paloranta, an analyst with the New York Times.

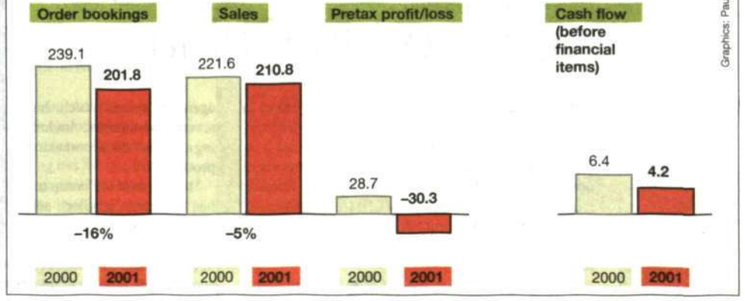
In an interview with the BBC's World Business Report, analyst Peter Richardson also expressed some confidence in the future regarding Ericsson:

"The first half of 2002 will be difficult, but during the second half, Ericsson will begin to acheive a return on its investments in 3G networks. The real profits will only be generated once the networks start coming into full use."

SARA MORGE
sara.morge@lme.ericsson.se

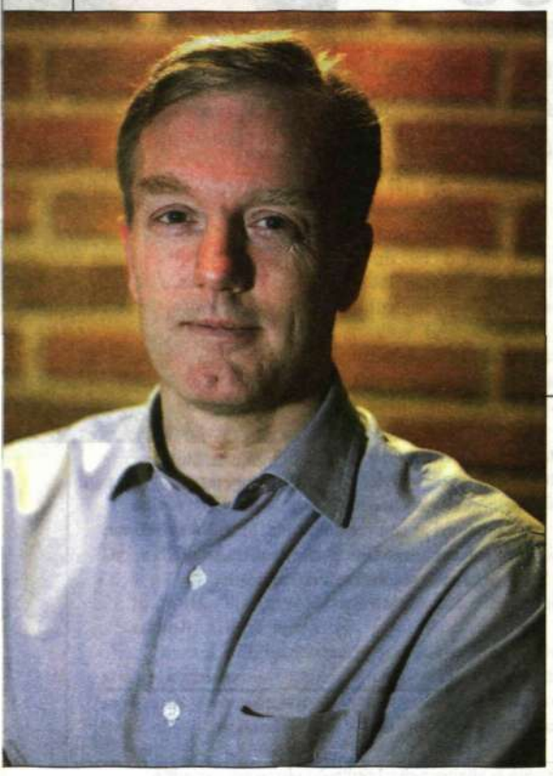
PAUES YEAR-END REPORT 2001

Ericsson's results for full-year 2001, compared with full-year 2000 (SEK billions).



An exciting year ahead

For the Multi-Service Networks business unit, the year 2002 will involve continued savings, but also more orders and a partly new approach. Johan Bergendahl, head of the unit, believes that it can be problematic to be both pushing ahead while simultaneously scaling back.



Johan Bergendahl, Multi-Service Networks

When he assumed responsibility for the business unit last September, he did not anticipate having to start out by implementing such an extensive efficiency program.

"Nobody could foresee that the economy would take such a rapid dive. As things stand now, I can take satisfaction in knowing that we are now well-positioned in the market and that we know what we need to do in order to come back stronger," he says.

Johan Bergendahl believes that 2002 will be both a difficult and exciting year. Savings will continue, as well as improving efficiency.

"At the same time, we know that the various solutions within the Engine concept are in high demand, so once operators start investing again, many of them will select these solutions. We've even noticed that competitors are starting to develop solutions that are similar to Engine, which means that they believe in the concept as well," he says.

During the coming year, the business unit will put greater effort into developing complete solutions.

"We can't simply work on the integration of infrastructure products. We also need to be working on defining and developing new services for end users, such as secure and improved solutions for telecommuting. In that way, we will be able to offer comprehensive solutions, something that most operators are demanding," says Johan Bergendahl.

This is an area he would very much like to return to.

ULRIKA NYBÄCK
ulrika.nyback@lme.ericsson.se

CDMA breakthrough occurred in China

The most important event for CDMA Systems in 2001 was the major contract with China Unicom, according to Åke Persson, head of the business unit. The contract demonstrated not only that there is major potential for CDMA technology, but also that Ericsson is one of the leading suppliers of CDMA infrastructure.

Overall, the CDMA unit felt the impact of the global economic downturn last year, just as did other mobile telephony areas.

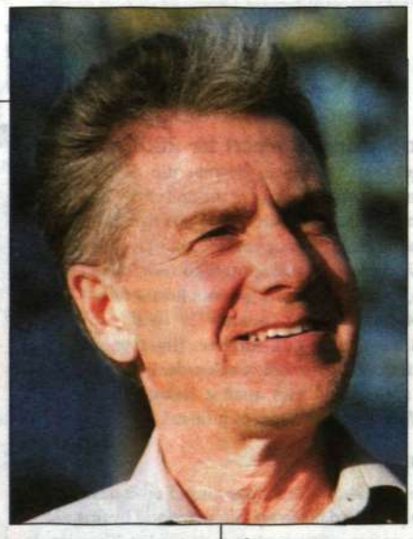
"Many CDMA2000 networks have been planned, but it is taking time for them to be implemented. Mostly, this is due to the lack of enthusiasm for investment on the part of financiers. China is, however, a shining exception. There, they continue to make heavy investments and are, in this respect, creating greater demand throughout the rest of the Asia-Pacific region."

When it comes to the new organization, he has found that the transition from divisions to business units has reduced the distance to the corporate management team, which has several advantages, including a simpler decisionmaking process.

"It feels as if the company has become 'smaller' and easier to control."

Finally, Åke Persson believes that the challenges for 2002 include proving that Ericsson has the world's best CDMA2000 system and, naturally, to ensure that all its customers are satisfied. And when it comes to the unit's own organization, he will be constantly monitoring the staffing to ensure that it properly matches the unit's needs.

LARS CEDERQUIST
lars.cederquist@lme.ericsson.se



Åke Persson, CDMA Systems

Björn Olsson, Transmission and Transport

Well-positioned for the future

"It has been a tough year for us. Many of our employees have only worked during periods of growth, so it has been a difficult adjustment to suddenly wake up and realize that the telecom world will not continue to experience unchecked growth," says Björn Olsson, head of the Transmission and Transport business unit.

Despite hard adjustments, including a tighter belt and increasingly intense competition within the market, Björn Olsson believes that it has been a good year for his business unit.

In the microwave segment, Ericsson is a market leader with an impressive 40-percent market share. The situation within the opto unit has been a little rougher, although Ericsson managed to come through well in comparison with its competitors. Several 3G contracts were brought home during 2001, including ones in Germany and Italy.

"It has been a good year, we have increased our sales and strengthened our position. In certain markets we are very strong, such as Spain where we are a leader in both the opto and microwave fields," says Björn Olsson.

Björn Olsson has had sufficient time to feel at ease as head of the new business unit and he thinks that the changes in Ericsson's structure have been positive.

"Combining the opto and microwave operations into a single unit has given us a favorable structure. Thanks to this move, we have a skill set that no other supplier has."

Internally, it has been difficult to combine two units with such different business cultures, but the end result has been positive.

Björn Olsson has high hopes for the new Swedish company. He is convinced that it will generate major improvements and cost savings for his unit.

"Now we will be able to concentrate on what we are good at, namely developing new products and working more with customers."

The biggest challenge for 2002, according to Björn Olsson, will be to adapt operations to the current market, without losing momentum. Even as operations become more streamlined, the unit must continue to break new ground. The markets in China and the US will have to be worked over especially intensively.

"We must simply do more with less. At the same time, we must be prepared to act quickly in an upswing. It will be important not to accelerate costs once the market takes off. But we are definitely well-positioned in terms of having new products in the pipeline as we move into the future," concludes Björn Olsson.

SARA MORGE
sara.morge@lme.ericsson.se

Global Services grows despite downturn

The Global Services business unit continued to grow last year despite the downturn that affected the telecom industry. Bert Nordberg, head of the business unit, has great expectations for 2002. He believes that this could be the year that Ericsson makes its major breakthrough into the services market.

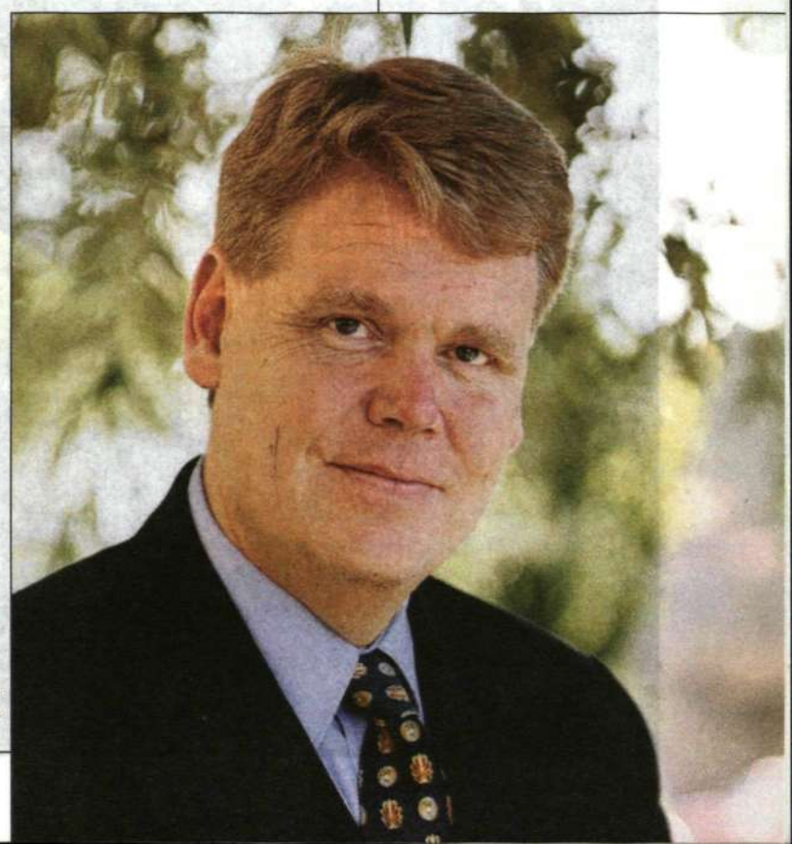
Global Services experienced very healthy growth last year. The operations have grown steadily since the unit was formed five years ago. Bert Nordberg believes that this positive trend will continue this year.

"Our first priority is to remain vigilant about continued growth. Conditions seem to be very good for that. The major reorganization within the company especially suited us. We now have a distinct service organization in every market unit, looking out for our interests and providing us with a good overview of the market," he says.

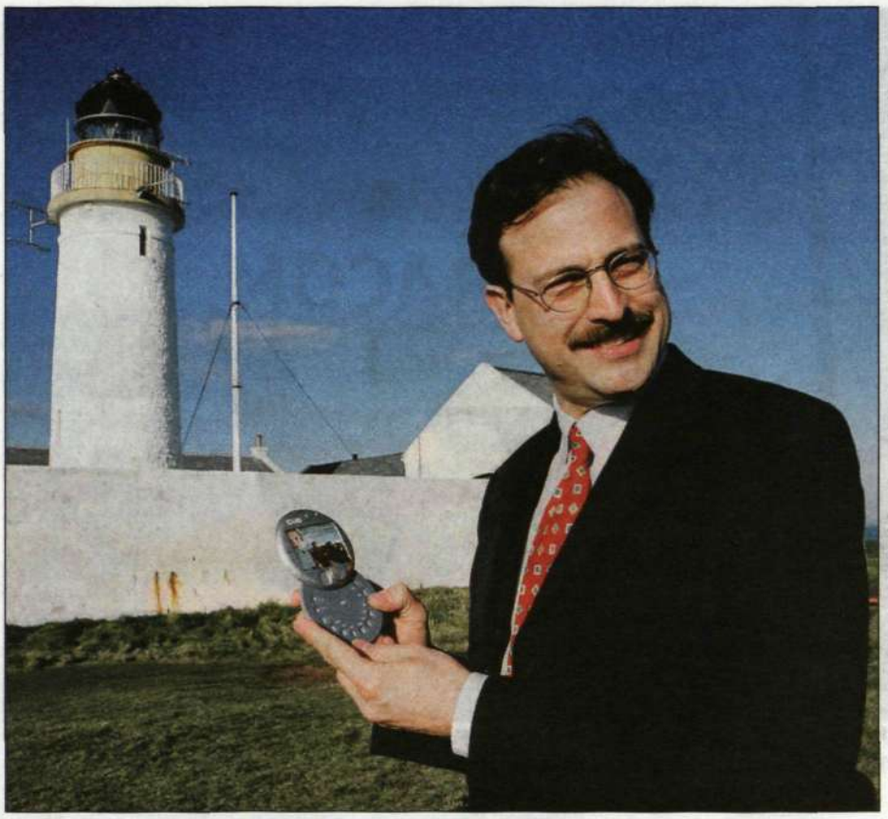
Bert Nordberg has also noticed a definite increase in interest among operators for purchasing services, even to the point of subcontracting network operations.

"Operators are starting to realize that we can run networks for them more efficiently and at a lower cost. All they have to do is dare to take that step. Once they do, an enormous market awaits Ericsson."

JENZ NILSSON
jenz.nilsson@lme.ericsson.se



Bert Nordberg, Global Services



On December 5, Europe's first 3G network was launched on the Isle of Man. Approximately 30 transmitters will provide the island's 75,000 inhabitants with 3G capacity. Pictured here is Rudolf Siegert from the supplier of the network equipment, Siemens. PHOTO: SIEMENS

Awaiting dual mode

Finland, Norway, Sweden and the Isle of Man have all now inaugurated their 3G networks. More launches are likely to come this year with the December 31 deadline set by the EU. Infrastructure suppliers can look forward to a brighter year than 2001. Users, on the other hand, will have to wait for functional services.

When Manx Telecom launched its 3G network on the Isle of Man on December 5, 2001, following months of delays, a number of 3G telephones were already in use. When the Nordic operators opened their networks shortly after, no phones were on the market.

Richard Dineen

"On the Isle of Man, pure WCDMA phones are in use. Most operators want to wait until dual-mode phones with both GSM and WCDMA are available before launching for real. The availability of such phones is a key factor for 3G," explains Richard Dineen, senior analyst at Mobile@Ovum.

The Isle of Man launch is more a matter of small-scale testing rather than a broad launch. At the outset, 25 3G phones with limited functionality from NEC of Japan were in use and this number is now being increased to 200.

NTT DoCoMo has thus advanced much further. Richard Dineen feels that the Japanese operator is taking somewhat of a chance by launching 3G so early, long before its competitors KDDI and J-Phone.

Varying deadlines

In Europe, the stress of getting the networks up and running has largely been due to an EU decision that they should be functional before the end of 2002. The various member states have then chosen to set different deadlines ahead of that point. Farid Yunus, senior analyst for the mobile market in Europe at Yankee Group, points out that the authorities are not likely to strictly enforce the conditions set for operators.

Farid Yunus

"Most 3G licenses have conditions attached regarding roll-out. They must offer coverage for a set number of users by a particular date. The authorities have, however, grown more generous in consideration of the difficulties that the industry has faced," he explains.

"Therefore, it is not particularly likely that any operators who do not follow their contract to the letter will be fined," says Farid Yunus.

Major expansion this year

Farid Yunus believes that dual-mode telephones will become available towards the end of 2002. Most analysts, however, believe that a broad usage of 3G services in Europe will be delayed until 2003–2004, although a large portion of the build-out will take place during the latter half of 2002. The Dresdner Kleinworth Wasserstein research company therefore expects sales of mobile systems to increase by 23 percent during the second half of 2002 compared to the same period one year-earlier.

For 2002 in total, however, the increase will be a mere 3 percent, primarily because of the delay to 3G.

ELIN DUNÅS
elin.dunas@lme.ericsson.se

Three satellites of this type will enable global 3G operators to provide coverage in the most remote areas of the world. PHOTO: INMARSAT

British Inmarsat investing in 3G

Vodafone and other mobile operators are considering plans to complement their 3G networks with satellite telephony, according to a recent statement by Michael Storey, president of UK satellite company Inmarsat, to The Times. Satellite telephony could be used outside the coverage areas of their 3G networks. The London-based satellite company plans to invest about USD 1.6 billion in three new satellites. The satellites will be launched in 2004, when operators expect mass usage of 3G services.

Nortel trying to reverse trend

Nortel Networks projects a 10-percent decline in sales this quarter, compared with the preceding quarter. The economic slowdown continues to impact the purchasing power of customers. Revenues during the preceding quarter fell sharply, and operating losses amounted to USD 506 million. Overall, 2001 was the worst year in the Canadian company's history.

Frank Dunn

"One of our top priorities is to re-energize our people after what they went through in 2001. I personally feel very sorry for what has happened and apologize to shareholders and employees," Nortel's Chief Executive Frank Dunn told a conference call with investors, according to Reuters.

Vodafone reaches 100 million subscribers

Vodafone has passed the magic number of 100 million mobile subscribers. The company has increased its total number of subscribers by tenfold over a period of three years and now has the world's largest customer base.

Most of the increase has been achieved through acquisitions of smaller operators throughout the world.

Nokia launches company for the rich and famous

During the recent fashion week in Paris, Nokia launched Vertu – a subsidiary that will sell mobile telephones with price tags in the USD 20,000 range. The mobile phones are designed by Frank Nuovo, who has been Nokia's head of design since 1995. The first collection will be available in a range of material options, such as casings in platinum, 18 carat white gold, 18 carat yellow gold and stainless steel. Even the hearts of the phones will be designed specifically for the rich.

But will they be willing to spend that much on a mobile telephone? According to Stuart Jeffrey, an analyst at Lehman Brothers, there definitely is a market for luxury products. Volumes will probably be small, but margins will be stratospheric, he told Reuters news agency.

Some 45,000 Ericsson employees regularly use the Racom connection service to externally access the company intranet. Ericsson Global IT Services has launched two new features that now make Racom even easier to use.

Racom faster on the Internet

Racom is already a popular service within the company. Now Ericsson Global IT Services has developed two new features that will make Racom both faster and easier to use. PHOTO: JENZ NILSSON

It's now possible to use Racom via the Internet. The service enables users to take advantage of broadband speeds when connecting to Ericsson's intranet.

Racom (Remote Access Communication) via the Internet was developed for the ESOE 2000 environment and is based on a VPN client (Virtual Private Network). The client allows users to establish a secure connection, via the Internet, using encryption to connect with Ericsson's intranet, ECN. Once connected to ECN, it is possible to access both one's e-mail and Ericsson's intranet, allowing people to work as if they were in the office.

"This service is also known as broadband Racom, since it utilizes the most common broadband solutions in conjunction with Racom. It is much faster and easier to work with this sort of solution, compared with the original Racom basic system, which is a dial-up service where you are connected to a modem pool within Ericsson," says Kjell Wallin, product manager at Ericsson Global IT Services.


Kjell Wallin

VPN technology has long existed within Ericsson. The reason that it has not been possible until now to operate Racom via the Internet is that there have not been sufficient security measures in place.

This is no longer the case.

"When it comes to encryption via the Internet, it is the security aspect that has always been the hardest to resolve. But we've come up with a solution that equips every VPN client with its own firewall, preventing unauthorized access and virus attacks."

Racom over the Internet should be seen as an added feature to Racom basic. In order to be able to utilize the service, one must first be a Racom basic user and have a PC.

The service has been available for ordering on Ericsson's intranet for about a month. There is a one-time hookup fee of USD 95 as well as a fixed monthly fee of USD 14.

JENZ NILSSON
jenz.nilsson@lme.ericsson.se

it.ericsson.se/itservices/

Access your e-mail around the globe

You no longer need to have a PC equipped with ESOE in order to access your work e-mail account.

Internet Mail Access (IMA) allows Racom users to connect to Outlook/Exchange from any external PC equipped with Internet access.

These days, it is very important to be able to remain in contact with the home office and one's work colleagues even while traveling. E-mail, an invaluable communication tool for short questions and answers, is now becoming increasingly accessible to end users. These days, access to Internet-equipped computers is available for hire or free at most hotels, libraries and airports around the world. Internet cafes are increasingly becoming a familiar sight in urban environments.

If you have both an Ericsson e-mail account and Racom access, it is now possible to access Outlook/Exchange from any Internet-connected PC anywhere in the world.


Ronny Johnsson

"Internet Mail Access is a complimentary feature of the e-mail service and does not cost anything extra, nor do you need to register as a user. The service is available now if you want it," says Ronny Johnsson, product manager for IMA at Ericsson Global IT Services (EGIS).

Just as with Racom via the Internet, a stable and secure connection between the Internet and Ericsson's intranet is the most important requirement for IMA.

"We've solved that problem by placing the IMA server on Ericsson's extranet, in other words in the zone between the Internet and the company intranet. Users call up a special Internet site and log in using their Racom password. If the password is approved, a connection is established with the IMA server which, in turn, connects to the application that runs Outlook/Exchange."

Once connected, it is possible to read and reply to e-mail as usual, although it is not currently possible to open and read e-mail attachments using IMA.

"This is purely for security reasons. Within the Microsoft Windows environment, e-mail attachments are processed by creating a temporary file on the local PC you are currently using. Should you be forced to suddenly quit your work and quickly shut down, the file could remain on the PC, completely accessible to anyone who wanted to read it," he says.

Ericsson Global IT Services is currently working to solve this problem and Ronny Johnsson believes that it will be possible to read e-mail attachments via IMA.

The service was first put into operation early last autumn, but it is only now being launched on a widespread basis within the company. IMA is currently operated from three different server locations: Dallas, Kuala Lumpur and Stockholm, and the system is capable of handling 2,500 users simultaneously. The next challenge for EGIS is to get the IMA concept to also work with mobile phones.

JENZ NILSSON

For more information about IMA, log on to:

racom.ericsson.se/lima/

In order to utilize IMA, log on to:

ima.ao.ericsson.net/ (Asia)

ima.ericy.com (Americas)

ima.ericsson.net (Europe, Middle East and Africa)

"One woman we are supporting was attacked by her former partner. The police arrived very quickly when she raised the alarm and she believes that her call made the difference between life an death," says Marie McCallum, who works on the SupportLink project in Canada. (The woman in the picture has nothing to do with the persons in the article).

PHOTO: RICKARD KILSTRÖM/PRESSENS BILD

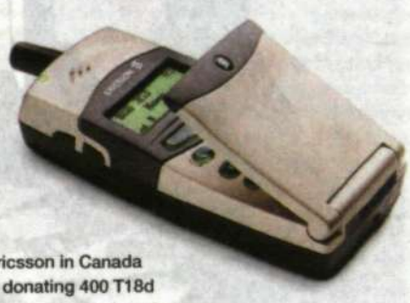
Saved by a call

Ericsson in Canada is donating 400 mobile phones to persons living under the threat of violence and abuse. At the touch of a button, the potential victim can raise the alarm by calling the 911 emergency number.

"A phone call can make the difference between life and death," says Marie McCallum, who works on the SupportLink program in Canada.

"The majority of the people we help live in constant fear. Many of them live in rural areas and can't even afford a wireline phone. With a mobile phone, they will have the courage to leave their homes sometimes, to collect the children from school or visit friends and relatives, for example," says Marie McCallum.

Marie is Executive Director of the Victims Services Unit in Barrie, one of the first towns to begin working with the SupportLink project.



Ericsson in Canada is donating 400 T18d phones to a project that supports persons living under the threat of violence and abuse.

Corporate support for project

The SupportLink project started three years ago and is financed by the government of Ontario. Two companies are supporting the project: Ericsson has donated 400 telephones (T18d) and the operator Rogers AT&T Wireless is paying for the subscriptions and the call time. Marie McCallum does not believe that the project will become dependent on the companies' willingness to contribute money.

"If the companies that currently support us were to pull out, I believe that there are many others willing to take their places. I am extremely pleased that these issues have become more visible in society and that increasing numbers of people are willing to support this kind of project," she says.

Patricia MacLean works with Public Affairs at Ericsson in Canada. She explains why the local company chose to support the SupportLink project.

Patricia MacLean

"We want Canada to become a safer place to live, which is one of the reasons why we are donating phones to people living under threat – in this case, both women and men," says Patricia MacLean.

The SupportLink program has gained the attention of employees at Ericsson in Canada and the external media.

"I find that the employees are very proud that Ericsson is supporting this project and believe that this commitment strengthens work morale among the employees," says Patricia MacLean.

Extensive program

The SupportLink program has both short and long-term goals. In the short term, immediate safety issues are prioritized, such as the installation of safety doors and better locks, the importance of cooperation with the police and ensuring that the persons affected always take their mobile phone when they leave home.

The persons affected and those who work with the SupportLink project meet once a fortnight and also prepare a long-term plan that includes such matters as how the victim can make a living. Is it possible for him/her to study in order to get a better job? What other authorities can support the victim?

The persons who receive support through the program are men and women over the age of 18.

"The more this type of program becomes known to the public, the more people will seek help from us. Today, we provide assistance to many different people, from new mothers aged about 20 to a couple who are aged 70," says Marie McCallum.

Has the number of victims of violence and abuse increased in Canada during the past year?

"We have no figures on this. However, I believe that these problems have always existed, but the issues are no longer as taboo as they once were. More people are willing to seek help," Marie McCallum believes.

In two years, the project has expanded to include 18 different towns and small communities, including Durham, Toronto, Timmins and Niagara.

Ericsson in Canada is also involved in other community support programs. It supports the Canadian Red Cross through local Ericsson Response activities and has developed a virtual stock-market game that is played over a direct connection. All profits from the game go to an organization that supports vulnerable women by providing them with alternative housing, among other measures.

ULRIKA NYBÄCK
ulrika.nyback@lme.ericsson.se

Increased competition for Ericsson in Nigeria

Ericsson in Nigeria is currently delivering systems and services to all three mobile phone operators in the country. Over the next two years, however, the company will be subject to fierce competition due to the deregulation of the telecom market and an exemption from duty on telecom products. Roland Guillou, head of the local company, talks about business opportunities in Africa's most populous nation.

Nigeria has 120 million inhabitants. Only 500,000 of them have a mobile phone subscription. In recent years, the government has instituted a number of measures aimed at stimulating the expansion of the country's mobile networks, thereby giving more people the opportunity to make calls.

Deregulation of the Nigerian telecom market began with the sale of the majority stake in Nitel, the state-owned operator. In January 2001, the first four GSM licenses were auctioned off for the expansion of the mobile network. Regulators approved three of these. Recently, it was decided to also implement an exemption from import duty on all telecom products during a two-year period – 2002 and 2003. It is likely that the fourth GSM license, as well as a second license for the fixed network, will be auctioned off this year.

Satisfied customers

Ericsson established a local company in Nigeria as long ago as 1977. This is one of the reasons why the company is now supplying telecom equipment to all three of the country's mobile phone operators: MNT, Econet and Nitel.

"We have a big lead considering the fact that we've been operating in this market for so many years. Long-term business relationships are important here. Moreover, the operators have been very satisfied with our products and services to date," says Roland Guillou, head of the local company.

A natural result of deregulating the telecom market has been an increase in competition. Several suppliers are working hard to make inroads into the Nigerian marketplace. Suppliers are competing partly by offering customers generous financing arrangements and payment plans.

"The ability to offer attractive financing plans for customers can be decisive in how we stand up against increasingly fierce competition in the future," says Roland Guillou.

He has noticed a huge demand for mobile phone subscriptions. For example, when Econet announced its new subscriptions, there were long lines outside the operator's offices.

"Deregulation and increased competition in the marketplace mean that the price of mobile phone subscriptions have dropped substantially, which is necessary in order for the average citizen to be able to afford to call. Just six months ago, it was only the upper class who could afford the luxury of purchasing a mobile phone and paying the going call rates."

An extremely rapid rate of growth in the number of mobile phone subscribers is now forecast. Every operator has pledged over the next five years to ensure that at least 1.5 million subscribers have signed up on their respective mobile network.

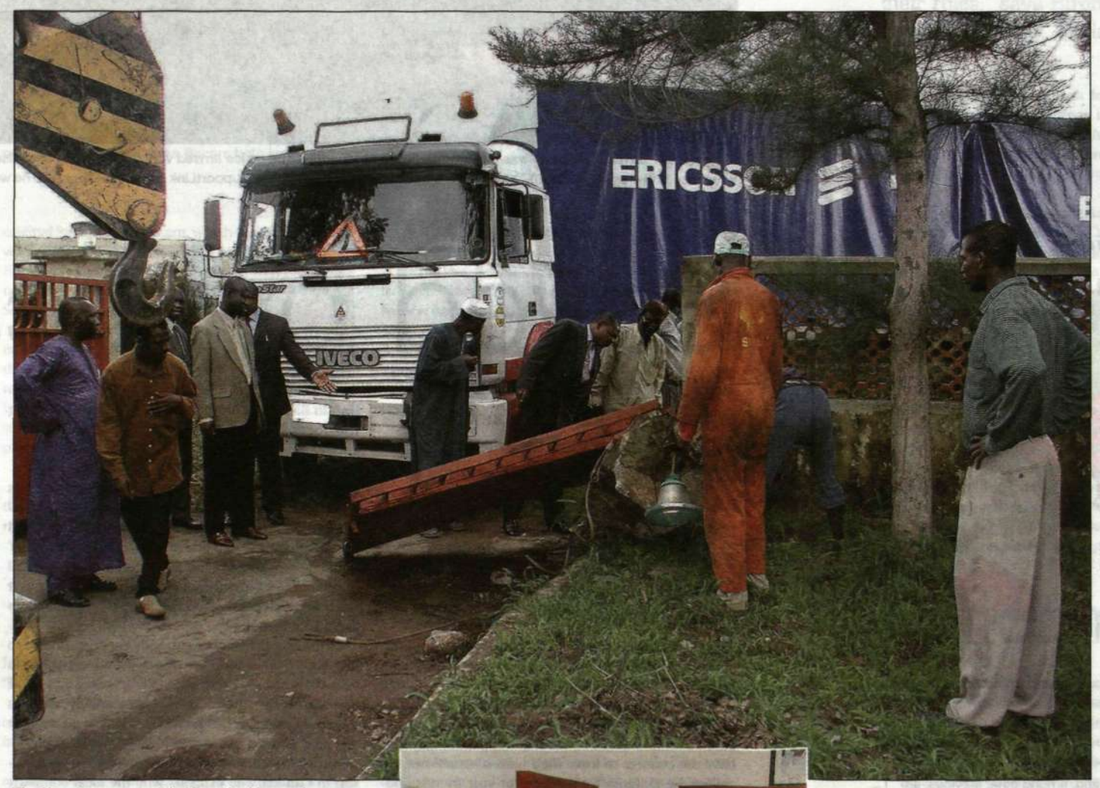
Hub for all of western Africa

It became clear last October that Ericsson in Nigeria will serve as a hub for support operations in western Africa. The local company will provide support to twelve other nations, including Ghana, Benin and Sierra Leone. That support will involve certain technicians in Nigeria traveling to neighboring counties to provide support in the way of training and implementation. Roland Guillou has overseen the local company in Nigeria for two years. Despite a heavy workload, he very much enjoys his work.

"I'm very satisfied. Mostly because we have such a good team of workers, but also because business is going so well," he says.

ULRIKA NYBÄCK
ulrika.nyback@lme.ericsson.se

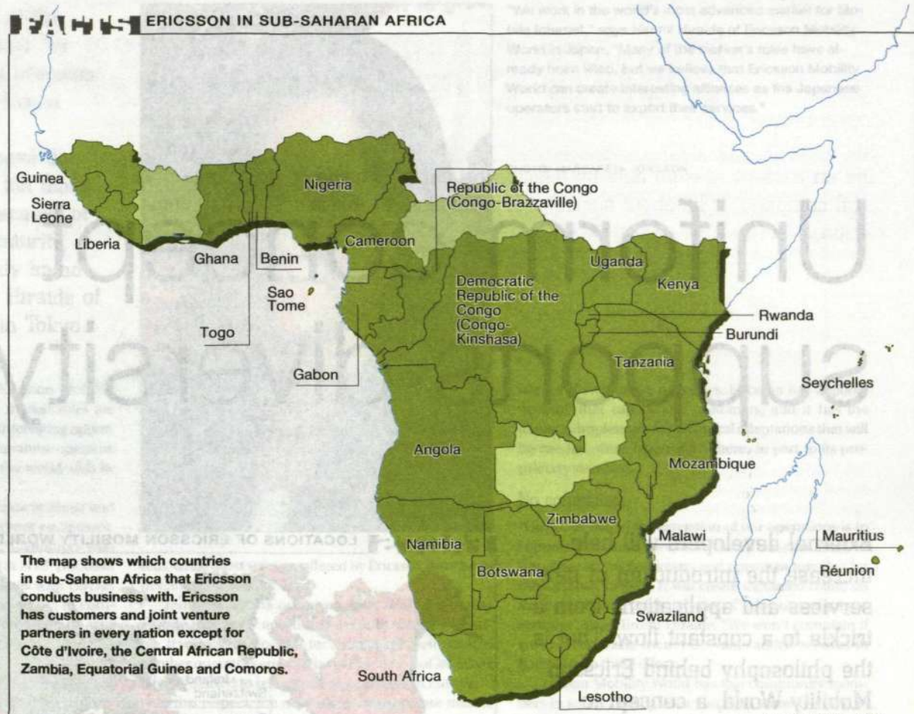
musa.ericsson.se



The Nigerian operator Nitel launched its service on October 15, 2001. Here, Ericsson employees are seen working together with Nitel workers to deliver containers with telecom equipment for installation at a site.

PHOTO: KARL-BERTIL EK

Employees from mobile phone operator Nitel learn how the new GSM system works.



The map shows which countries in sub-Saharan Africa that Ericsson conducts business with. Ericsson has customers and joint venture partners in every nation except for Côte d'Ivoire, the Central African Republic, Zambia, Equatorial Guinea and Comoros.

Graphics: Paues Media

Major demand for telephony

While Europe, Asia and the US are building out their 3G-networks, sub-Saharan Africa still has a crying need for conventional telephony. Much needs to be done and much is also being done. For Ericsson, this means continuously signing new contracts in a market that is growing intensively.

"This year alone, we hope to increase net sales by 30 percent," says Jan Embro, head of the region's 34 countries since October.

Despite the shortage of telephony in general, it is primarily the mobile sector that is being developed. It is expensive to lay copper cables, while it is considerably quicker to roll out a mobile network. Many countries in Africa are frequently involved in wars and civil strife and sub-terrain landmines create obstacles for the expansion of fixed line telephony in many parts of the continent.

"It is not exactly an easy area," Jan Embro continues.

He was appointed managing director, Ericsson South Africa in April 2001. At the time of Ericsson's global reorganization in October, sub-Saharan Africa became a single market unit and Jan was given the honor of managing for the entire region. Ericsson has steady business with 29 of the countries.

"Here in sub-Saharan Africa, the reorganization has only been for the good. Previously, each country was an island that was managed from the head office. We now take regional responsibility, which is much more efficient," he says.

Jan Embro is stationed at the head office in Johannesburg in South Africa, where the infrastructure, including telephony, is well-developed. Mobile penetration there is approximately 20 percent and the operator MTN will soon start offering GPRS in cooperation with Ericsson. The South African mobile operator is Ericsson's largest customer in the region. This cooperation began in 1993 and the operator has had Ericsson as its exclusive partner the entire time. MTN now also operates in Swaziland, Rwanda, Uganda, Cameroon and Nigeria.

Jan Embro says Nigeria is the GSM market that it is believed will experience the largest percentage growth prior to 2006 – more than China. Nigeria is then expected to be Africa's largest telecom market, ahead of South Africa.

It is thought that the third-largest market in southern Africa will be Congo-Kinshasa.

"Business is going very well for us there," says Jan Embro, happily. "We have supplied a number of GSM systems and a large portion of wireline telephony. We recently signed an agreement with the authorities in Congo regarding the terms and conditions for a nationwide backbone network with full coverage, which will be built over 5–10 years," he says.

Since business is so favorable in sub-Saharan Africa, there is no talk of any cutbacks there. On the contrary, there is a need to recruit some 50 people.

"We are trying as much as possible to employ people locally instead of using expensive contracted labor," he explains.

In South Africa, the stress level is not the same as at home in Sweden, Jan Embro finds. The hot weather means that people spend a lot of time outdoors and devote time to team sports. Many compare the environment with that of Australia.

But when *Contact* asks Jan Embro if he practices any sport, he laughs, a little embarrassed.

"During the past year, I have changed jobs twice and have not had very much leisure time. But it is actually one of my New Year's resolutions to have better balance in my life and start exercising."

ELIN DUNÅS
elin.dunas@lme.ericsson.se

Uniform concept supports diversity

External developers will help increase the introduction of new services and applications from a trickle to a constant flow. That is the philosophy behind Ericsson Mobility World, a concept to ensure the recognition of new ideas from every corner of the globe.

Ericsson Mobility World is a partnership program in which Ericsson cooperates with external application developers to drive the future development of Mobile Internet. The success of 3G depends on interesting and practical applications and services.

Per Jomer

"The reason we created Ericsson Mobility World was to enable developers to enter the Mobile Internet industry, and by doing so we hope to fertilize the whole business," says Per Jomer, corporate head of strategic business partnerships.

It's important for Ericsson to offer customers end-to-end solutions. Therefore Ericsson needs partners, who can develop good applications for Ericsson's networks.

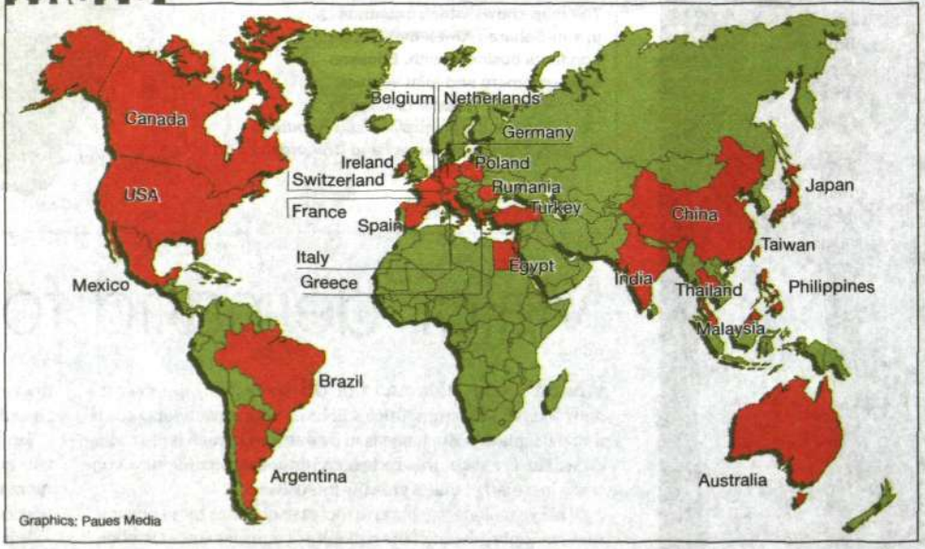
"The main objective of Ericsson Mobility World is to create as many different applications as possible. Applications that run on Ericsson networks. More applications will lead to increased sales of Ericsson products. This is what we mean by business acceleration by partnerships," says Per Jomer.

During 2001, when Ericsson merged all of its centers for external applications development under one umbrella – Ericsson Mobility World – it intended to create a more clearly defined brand externally and a more structured organization internally. In the past, the various centers had different characteristics, names and operating methods.

"The novelty of Ericsson Mobility World is that we have consolidated all our different centers under a single brand, a single concept. We have gone from 14 brands to a single one, which also strengthens the Ericsson brand. Most importantly, it sends a powerful message to telecom operators that we are taking a very serious approach to Mobile Internet," says Per Jomer.

SARA MORGE
sara.morge@lme.ericsson.se

LOCATIONS OF ERICSSON MOBILITY WORLD TODAY



Graphics: Paues Media

ERICSSON MOBILITY WORLD

Community Member Program
The program is open to both private individuals and companies. Registration is free of charge. As members, they are provided access to the software, information, technical news, training and support needed to create services.

Ericsson Associates Program
Focused on companies with competence within products and services for the Mobile Internet. The companies are assigned a contact person at a local Mobility World office and, among other services, are provided access to marketing services, Sony Ericsson prototypes and equipment to test their products. A fee is charged for participation in the program.

Business Partners
Via Ericsson Mobility World, Ericsson initiates partnerships with selected companies that have technologies or applications that are particularly interesting to Ericsson. Every partnership is customized to meet the needs of every unique requirement.

Major challenges in Japan

Thanks to i-Mode, Japan is the world's most mature market for Mobile Internet. Its status presents special challenges for Ericsson Mobility World in Tokyo.

"It may seem like we have the best possible conditions, but that's not quite true. Instead, because of the Japanese market's maturity, most players have already found their roles," says Hiromi Hiraide of Ericsson Mobility World in Tokyo.

"We work in the world's most advanced market for Mobile Internet," says Hiromi Hiraide of Ericsson Mobility World in Japan. "Many of the market's roles have already been filled, but we believe that Ericsson Mobility World can create interesting alliances as the Japanese operators start to export their services."

PHOTO: MARGARETA JONILSON

On the one hand, it's difficult for Ericsson Mobility World to enter the arena, since the market roles are already defined. On the other, highly interesting opportunities are being created as leading Japanese operator, NTT DoCoMo, now moves out into the world with its successful i-Mode service.

In addition, the Japanese market is more linear and static than most other markets. Customer equipment, for example, is operator-dependent. Customers who sign up for i-Mode subscriptions with NTT DoCoMo have to buy i-Mode-adapted telephones with certain built-in services, and are then denied access to competing J-Phone's portal for Mobile Internet, and vice versa.

Opening new doors

"Consequently, we simply have to find new entry points and initiate development projects with new service providers," says Hiromi Hiraide.

This does not mean, however, that Ericsson Mobility World in Tokyo does not see business potential.

A promising opportunity has been recognized in an area that represented an impediment in the past – the fact that Japan has always had its own PDC mobile system, while most services offered by Ericsson have been developed for GSM.

"Today, as Japan's operators enter third-generation mobile telephony and the systems become compatible, it will also be possible for them to sell their services to other operators around the world. NTT DoCoMo has already started to sell i-Mode to operators in Europe."

In this respect, the maturity of the Japanese market can also benefit Ericsson Mobility World.

"Once the services have established a firm foothold in the domestic market, the time will come to start exporting them," says Hiromi Hiraide. And the Japanese operators have now reached that point.

In the outward flow from Japan, Ericsson Mobility World will become a more valuable cooperation partner for the country's operators. Ericsson has a global network that can benefit customers, and it has the ability to implement the technical adaptations that will be needed, since Japan still adheres in part to its proprietary standard.

No complaints

"Our objective in the extension of our operations is to support Ericsson's core activities. If we can assist in bringing service developers and operators together for their mutual benefit, it will create increased traffic on the network and drive up sales of Ericsson radio base stations," says Hiromi Hiraide. "We won't complain if we also can make money on value-added services in parallel with these efforts."

Ericsson Mobility World has 850 community members in Japan. During 2002, Ericsson Mobility World in Tokyo expects to raise the status of several members to the next level as Ericsson associates.

MARGARETA JONILSON
freelance journalist

Matchmaker for stable partnerships

Ericsson Mobility World serves both as partner and a matchmaker in a three-party relationship designed to benefit all parties. Partnerships with Ericsson are intended to serve as door-openers for application developers in their relationships with operators.

"The interest expressed by application developers has been enormous. It's actually becoming a matter of how many we can accommodate," says Anders Lundvall, head of the partnership program at Ericsson Mobility World.

Several application developers at Ericsson Mobility World in Turkey describe how important their partnerships with Ericsson have been for their activities.

Bora Sahinoglu

"We would not have been able to get our products on the market if it weren't for Ericsson Mobility World. We are a small company, and it would have been difficult for us to establish cooperation with an operator in any other way. The technical support we receive from Ericsson is crucial in terms of our ability to demonstrate functional applications to operators," says Bora Sahinoglu, president of Tikle.

The reason Tikle decided to enter a partnership with Ericsson, Bora Sahinoglu explains, was Ericsson's understanding of partnerships and cooperation.

"We also believe that Ericsson is a pioneer within Mobile Internet."

Murat Soganicoglu, president of Noktalar, an applications company, says the partnership with Ericsson has enabled the company to sell its applications to a Swiss operator. That would not have been possible if Noktalar had not been able to test its applications on Ericsson's network in Ericsson Mobility World.

"The marketing opportunities we have been afforded through Ericsson Mobility World's network have made it possible for us to expand our market outside Turkey's boundaries."

"Our company would not have had a chance if Ericsson Mobility World was not there to help us. The dedication and commitment has meant a great deal to us," says Murat Soganicoglu.

Beril Afsar, marketing manager of the Turkish operator Turkcell, says that Ericsson Mobility World has an important role as a matchmaker between operators and application developers.

"Ericsson has been extremely helpful in our selection of application developers that are able to meet our standards, who can provide applications with the right content and work compatibly with our networks. The partnerships that have been established within Ericsson Mobility World are definitely driving the development of Mobile Internet applications," says Beril Afsar.

Beril Afsar

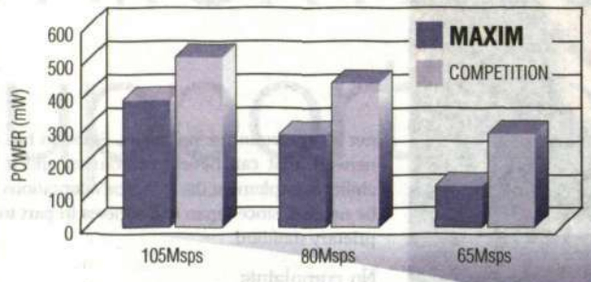
From Ericsson's perspective, the global network is an extremely important aspect that enables the company to quickly seize opportunities created by applications development in local markets. The concept is global, but the adaptations are local. Different markets have different conditions and, accordingly, they have to be cultivated in different ways.

"The local centers are clearly the most important focal point, even though we are working with a global concept. Virtually everything takes place locally, but – thanks to Ericsson Mobility World – we are able to quickly derive global benefits from applications that are developed locally," says Anders Lundvall.

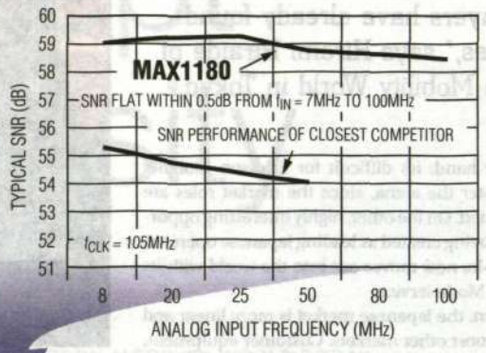
SARA MORGE

LOWEST POWER 3V, DUAL 10-BIT ADC DELIVERS 59dB SNR AT 105Msps

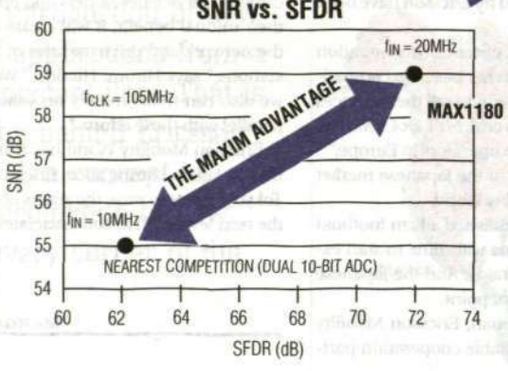
MINIMUM POWER!



MAXIMUM PERFORMANCE!



SNR vs. SFDR



- **Flat AC Specs Ideal For IF Sampling**
- **0.02 dB/0.25° Gain and Phase Matching**
- **Pin-Compatible Family at: 105Msps, 80Msps, 65Msps, 40Msps, 20Msps (MAX1180-MAX1186)**
- **Muxed Output Versions Available**
- **Just 53mW Per Channel at 20Msps**
- **Prices Start at $4.95†**

†1,000-up recommended resale, FOB USA. Prices provided are for design guidance and are for the lowest grade, commercial temperature parts. International prices will differ due to local duties, taxes, and exchange rates. Prices are subject to change. Not all packages are offered in 1k increments, and some may require minimum order quantities.

FREE* A/D Converters Design Guide—*Sent Within 24 Hours!

Includes: Reply Cards for Free Samples and Data Sheets

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

2001 EDITION!
FREE FULL-LINE DATA CATALOG ON CD-ROM

MAXIM
www.maxim-ic.com

MAXIM/DALLAS DIRECT! DISTRIBUTION

1-888-MAXIM-IC (44) 118 9303388

Securing operations in WCDMA networks

The new IP-based 3G networks require extra protection to guarantee secure operation of the system. Developers at Ericsson's security unit in Linköping are therefore designing a solution that will meet heightened operator requirements.

Attacks on the Internet and mobile networks are nothing new. It was easy to eavesdrop on the first NMT and TACS analog systems, and to make calls and charge them to another subscriber. In the digital GSM network, protection against eavesdropping was increased, in part through encryption. Until then only voice traffic had to be protected. Potential attacks against the network itself are a different problem.

Network performance may suffer if unauthorized persons are able to access the network and sabotage operations, or if errors or sabotage are caused by operations personnel.

Göran Söderholm

"Studies in this area reveal that internal threats are significantly greater than external ones," says Göran Söderholm, manager of the security unit in Linköping, Sweden.

It is therefore essential to know that only authorized persons and approved software and computers are able to access the network. One way of addressing this issue is to base authorization on digital certificates using secure encryption.

GSM was less vulnerable

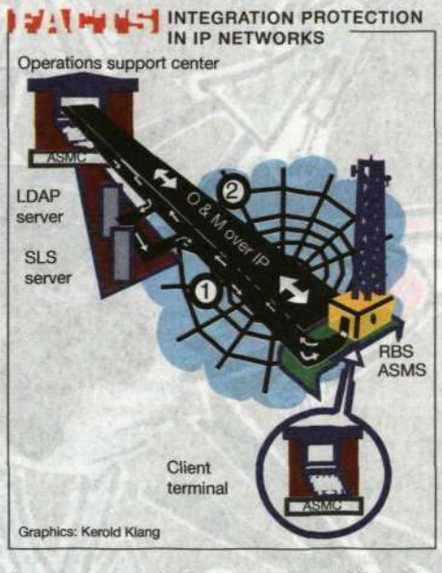
In the GSM system, it is relatively difficult for an external party to get inside the network and tamper with the system. Communication between nodes (MSC, Mobile Switching Centers; BSC, Base Station Controllers; and OSS, Operations and Support Systems) is via separate networks and using X.25, which is a difficult protocol for non-experts to penetrate. In addition, nodes in the core network are based on AXE, which requires deep technical knowledge to understand.

Operations functions in mobile networks will now be IP-based. New measures will be required when GSM networks are equipped with IP interfaces, but security measures are most important in the new 3G systems using WCDMA in the radio network. In these systems, all O&M (Operations and Maintenance) traffic in the UMTS Radio Access Network (UTRAN) will be completely IP-based and distributed in the various nodes: RBS (Radio Base Stations), RNC (Radio Network Controller) and RANOS (Radio Access Network Operating Support). This means that every access point, such as a radio base station, may provide entry to the entire network.

The use of well-known web-based technologies and languages, such as Corba and Java, makes it even easier for unauthorized parties to get inside the network.

"Previously, operators took it for granted that mobile network operations were reliable from a security standpoint and that security was included in the price of the system," says Göran Söderholm. "In 3G purchasing operators are making completely new demands, creating a situation where operators must be able to provide guarantees for end users that services are secure, and if we cannot supply secure services, then we will lose orders."

Because the 3G standard is focused on security for network traffic work was started several years ago to develop an architecture based on three complementary layers. This effort will culminate in April 2002 with the first commercial version for the 3G radio networks called UTRAN. In the next version, R3, the concept will be refined in an effort to integrate GSM and WCDMA.



A secure communications channel is established between the operations support center and all network nodes using the secure products SLS, LDAP and ASM. With step (2), is a channel in which O&M traffic can be transmitted securely via the ASM's.

In addition to secure protocols, operators want assurance that new nodes introduced into the network are secure and that it is possible to detect intruders while the system is running.

Ericsson's solution

The system that the Security Solutions competence center has developed focuses on the application layer in the trhee-level architecture, which consists of an IP-over-ATM transport network at the bottom, followed by a Secure Data Communication Network and topped by an application layer that includes operations support applications.

One of the solutions is based on a PKI (Public Key Infrastructure) system in which standardized third-party products are used for the encryption library and LDAP (Lightweight Directory Access Protocol), which stores security information in UTRAN. Certain key components in the system have been developed in-house.

One of these is a Single Logon Server (SLS), which makes things easier for the operator by requiring only a single logon for the O&M network. Thereafter, the operations personnel can work against any node in the network. In addition, there is a Public Key Server for generating digital certificates.

These components are combined with an Application Security Module (ASM), which is responsible for verifying authorization and identity and for securing Corba traffic between nodes. Protection is provided for the corresponding Telnet and FTP-connections by using SSH (Secure Shell) which is well known in data security circles, plus proprietary software.

LARS CEDERQUIST
lars.cederquist@lme.ericsson.se

www.lmera.ericsson.se/~secmgmt/new/index.html

Partnership to speed up spreading of Bluetooth

The Japanese design house Dai Nippon Printing (DNP) is the first in a chain of partners that Ericsson is planning to enlist to enable the company to offer Bluetooth support for designers of SOCs (Systems on a chip).

The idea is that the design houses included in the partnership should be globally dispersed in order to be able to provide local support for OEM (Original Equipment Manufacturers) chip manufacturers, thus allowing them to roll out new products with Bluetooth functionality faster.

The partnership agreement has been signed with Ericsson Technology Licensing, which is one of the driving forces behind Bluetooth and markets Bluetooth rights to the world's leading manufacturers. The design houses will help Ericsson Technology Licensing AB to develop new concepts faster. DNP is Japan's leading company in this area.

www.ericsson.com/Bluetooth

Cingular tests roaming between GSM and TDMA

The US operator Cingular Wireless, which uses both TDMA and GSM in its networks, has begun inter-network roaming trials using a technology called GAIT (GSM/ANSI-136 Interoperability Team), which includes both infrastructure and phones. The test will run through February, with commercial launch scheduled for March. Ericsson and Lucent are supplying equipment for the tests.

GSM/CDMA roaming in Korea and China

The first roaming tests between the disparate wireless technologies GSM (which is based on TDMA) and CDMA have now been completed in Korea and China. In Korea, KTF (Korea Telecom Freetel), which operates a CDMA network, has developed a mobile phone that can use the SIM card from a GSM phone so that the subscriber is connected to the CDMA network while retaining the normal GSM number. For roaming to work, an appropriate agreement between the two operators is required. The same technology is used by China Unicom, which has both GSM and CDMA networks and is a major Ericsson CDMA customer.

Student documents cadmium in components

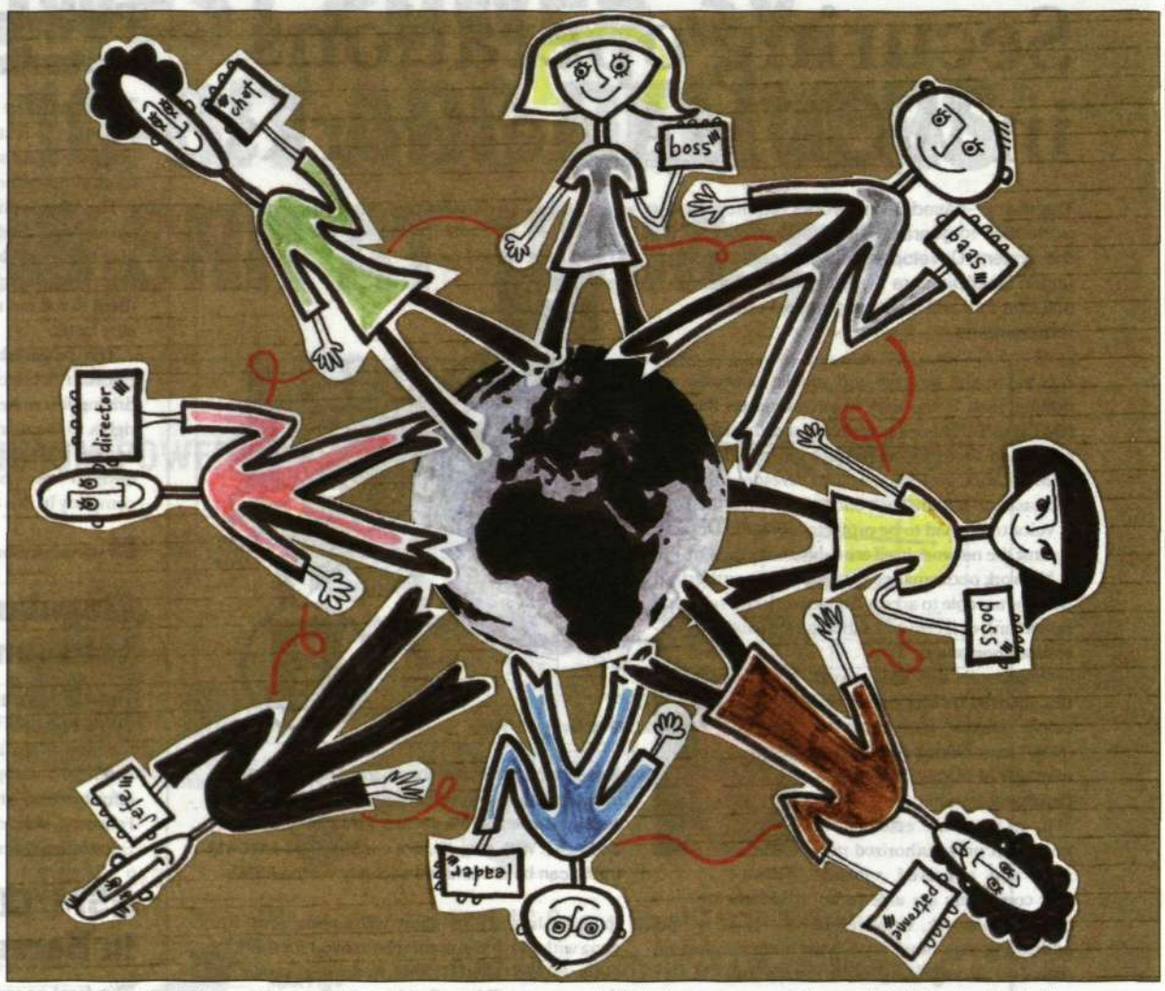
At the end of January, Sofie Pandis presented her undergraduate thesis on the phase-out of cadmium in Ericsson products. The study, which has been in progress since September 2001, was conducted within the Design for Environment program at Ericsson Utveckling AB.

PHOTO: ECKE KÜLLER

Cadmium is not only found in electronic components, but also in plastic and other materials. The substance, which occurs naturally as a residual product in zinc mining, has several desirable characteristics making it suitable for such applications as electrical contacts, thick film paste and solder flux. A small amount of cadmium can change materials and give them better properties, but cadmium is also poisonous.

"I have documented which of Ericsson's products use cadmium and which suppliers have substitutes for cadmium," says Sofie Pandis. "In most cases, replacements are available, but Ericsson must test the new components. This will take time, since products naturally have to deliver the same high reliability."

inside.ericsson.se/sustainability/dfe/reports.htm



The leadership driver's license is intended to create a common approach within the company and, in parallel, defend and uphold the different traditions and cultures that exist in the company.

ILLUSTRATION: JOSEFIN W-M

The fourth and final article in *Contact's* series on training describes the basic training program for all future management personnel within Ericsson. Leadership Core Curriculum (LCC) is a program designed mainly to create a common approach to the management role throughout Ericsson.

Ericsson language fluency with leadership license

A common corporate language is all well and good. To unite and sustain a company as large as Ericsson, however, it is also essential for all management personnel to speak "the language of Ericsson" and convey the language to their subordinates. All new management personnel in the company, accordingly, are now required to acquire a "leadership driver's license."

The basic leadership training that all new Ericsson management personnel undergo is called Leadership Core Curriculum (LCC). It is intended to create a common approach within the company, and describes how Ericsson views the management role.

But it's not only a matter of casting everybody in the same mould – an awareness of the company's different traditions is also needed, as well as sensitivity to its different cultures. The description of these aspects of LCC is provided by Eva Andreassen of Ericsson University, which is responsible for the structure of the curriculum.

"It's important that we maintain an Ericsson perspective, but we also have to give due consideration to the cultural differences that exist in a multinational company. In the past, we had different leadership training programs in different countries, but the market and customers change constantly, which has created the need for a uniform curriculum that can be adapted continuously to prevailing conditions."

LCC was formulated to support the development of leadership skills that Ericsson has defined as key competence areas. The program is required training for all new managers in their development as management personnel.

"The content is based on the knowledge that we consider important and that will provide a solid foundation for the development of successful management personnel. It is also intended to create a platform that will enable management personnel to develop their own leadership style," says Eva Andreassen.

Eva Andreassen

The entire program is conducted locally with common course materials by locally certified instructors.

"Sections of the material are always adapted to different cultures and specific situations of local companies. However, all 'learning goals' are conducted in the same way, and we are even able to measure how well these goals are achieved," explains Eva Andreassen.

FACTS LEADERSHIP CORE CURRICULUM

- Consists of five courses.
- A total of 15 days is required to complete the training.
- Started four years ago, but updated recently.
- 2,000 managers attend the course every year.
- LCC management seminar is available for persons who became managers before the program was started.

SARA MORGE
sara.morge@lme.ericsson.se

Communications are different in Japan

"The leadership driver's license is a good concept, and that's exactly why it's important for more Japanese management personnel to have it," says Hiroshi Nakamura, head of competence development at NRJ, Ericsson in Japan.

NRJ is an unusual Ericsson company. The percentage of Swedes among NRJ's approximately 1,200 employees is as high as one-third. In the highest echelons of management, Swedes comprise 70 percent of executive personnel.


Hiroshi Nakamura

"That's mainly because NRJ's expansion has proceeded so rapidly," explains Hiroshi Nakamura. "We haven't had time to recruit local personnel at the rate that would have been required – particularly in terms of management personnel, an area in which we cannot relax our English-language requirements."

Such a large foreign personnel force is not in line with Ericsson's general policy, but rather an adjustment to a temporary situation. The objective is to gradually replace a large percentage of NRJ's foreign employees with Japanese personnel. Before that can be achieved, however, comprehensive internal training programs in language and leadership will be required.

"LCC is an excellent tool," says Hiroshi Nakamura. "We have made some local adaptations, but the basic material is highly applicable for our requirements."

And this is why he hopes that more local employees are offered opportunities to participate in the training program.

"LCC has achieved an elevated status and, as a result, many of our higher management personnel have chosen to attend the course. Furthermore, with our current recruitment policy, many project managers will be considered for LCC training, although they seldom have direct responsibility for other personnel. Since most of our project managers and higher-echelon management personnel are foreigners, there are few places available for Japanese management candidates, who more often are first-line managers with personnel responsibility. If we continue in this way, it will take a very long time to find new local management personnel to replace the foreigners when they leave."

For this reason, Hiroshi Nakamura is now changing the company's recruitment policy so that more Japanese locals are offered a better chance.

Local adaptations of the LCC material are focused mainly on the mode of communications.

"There are more similarities than differences in the behavioral patterns of Swedes and Japanese," continues Hiroshi Nakamura. "Compared to Americans, for example, we Japanese are much more comfortable in the company of Swedes."

In the workplace, however, there are still certain differences that can cause problems. The most discernible is reflected in our different modes of vertical communications.

"Swedish managers delegate a great deal of responsibility to their subordinates and assume that everything is proceeding as planned as long as things remain quiet. The managers also assume their employees will contact them if and when necessary. In Japan, it's the other way around. It is the manager's responsibility to initiate the contact and give the employees his/her attention," says Hiroshi Nakamura.

So when a Swedish manager works with Japanese personnel, silence often reigns in the corridor. Nobody contacts anybody, which the Swede perceives as a sign that everything is under control, but that might not be the case. The employees might be sitting in their offices struggling with a major problem, but cannot bring themselves to knock on the manager's office door.

"And, indeed, in terms of 'dialogue', NRJ had the second worst rating throughout all of Ericsson in the latest human capital survey," says Hiroshi Nakamura.

MARGARETA JONILSON
freelance journalist

LCC suits the Dutch mentality

In the Netherlands, few adjustments have been made to the leadership courses. This could be due to the fact that René Appels, responsible for planning and development of LCC in the Netherlands, was involved in designing the concept from the start in the early 1990's.

René Appels is also a trainer on the leadership courses. He is based in the Netherlands but his working field is throughout Europe, the Middle East and Africa. In the Netherlands, about 50 people attend the courses each year, most of them local employees. However, the courses are open to all employees in the region, and the trend is toward groups with a higher percentage of international participants.


René Appels

"This is one of the practical advantages of LCC – you can spread the resources. If the course is not available where you are, you can just attend it somewhere else in the world," says René Appels. "Other obvious advantages are that you have one common language in the company, and that the demands made of Ericsson managers are the same no matter where they come from."

His colleague Tom Jansen also sees many advantages in having a uniform leadership training.

"There is more diversity in the classroom. People from different countries can share their experiences. It is an enormous advantage and it shows that we really are a global company", he says.

LCC seems to suit the Dutch mentality very well. No local adaptations of the curriculum have been necessary.

"Basically the program is the same. This could, of course, have something to do with the fact that I have had some influence on the curriculum," says René Appels with a laugh.

He has been involved in the development of the leadership training program since it was started at the beginning of the nineties by Britt Reigo, who then had just been appointed head of the newly formed corporate HR unit. Since then the course has been adjusted substantially to match the development of the organization and business strategies.

Although René Appels and Tom Jansen see no need to adjust the course to suit Dutch participants, they can still point out certain traits that are typical of their fellow countrymen.

"Dutch people are often perceived as very critical, they always have comments on things that could be better. On the other hand, they are generally very open, and eager to try new things and experiment," says René Appels.

It is important to pay attention to cultural differences, but another significant difference is that between various professional groups.


Tom Jansen

"An instructor always adjusts the course to the present group. For example, the way I work with a group of developers is quite different to the way I work with marketing people," says Tom Jansen.

What is it then that they are aiming at when they train people to be good leaders? What is the ideal Ericsson manager like?

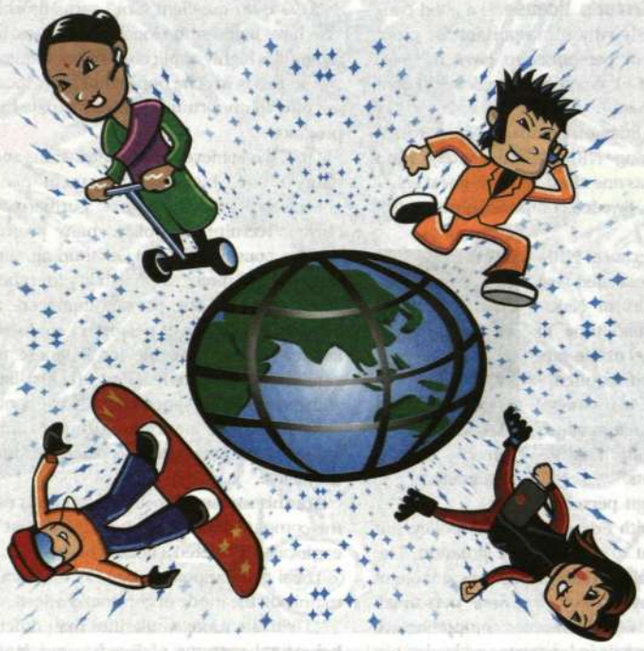
René Appels and Tom Jansen discuss this at length before finding an answer with which they are both satisfied.

"The ideal leader is a person with a clear vision. A good listener with a genuine respect for people, and with the ability of finding the right people for the job. These things are the core of leadership," concludes René Appels.

TONYA LILBURN
tonya.lilburn@lme.ericsson.se

World's best networks attract tomorrow's talent

A battle for talent. This is the future envisioned for companies that wish to recruit the best employees. Ericsson Foresight, together with Ericsson's corporate human resources function, has commissioned a study of tomorrow's workforce. Carl Brooling, who is responsible for resource and competence issues within Ericsson, explains how the company is working with recruitment and the lessons to be drawn from the study.



Tomorrow's workforce will be mobile both geographically and with respect to employers. Highly skilled employees, however, will remain scarce and competition for top talent will be even tougher.

ILLUSTRATION: BJÖRN HÄGGLUND

Global trends in the labor market are studied by the research firms Kairos Future and the International Research Institute on Social Change (RISC). The emphasis in the studies they have done for Ericsson is on young people who will be tomorrow's employees.

One of the most prominent trends is an increased shortage of highly skilled persons. In the West, the workforce is steadily shrinking as a proportion of the total population.

Carl Brooling

"There is a shortage of highly skilled workers, which is the group that is most important for Ericsson. We see this clearly, since we have gone from being a traditional engineering company to being an IT company. We compete with the best companies in the market," says Carl Brooling.

The labor market cooled considerably during 2001, when a total of 500,000 industry jobs were lost and some 20,000 employees were forced to leave Ericsson. Nonetheless, recruitment strategies are something that must always be improved. To survive over the long term, Ericsson must recruit absolutely the best employees, even though the total workforce may vary in size depending on market conditions.

Talent decides locations

The next generation of highly educated employees will to a greater extent be natives of emerging economies, such as India, China and certain Central European countries. Ericsson must respond to this change.

"We cannot force employees to re-locate, even if mobility is greater among younger and better-educated people. Instead, we will have to establish operations where the talent is. That's why we are locating research and development centers in these countries. We have to combine global and local thinking to attract the right employees. Ericsson is a global company, and our policies are developed on that premise. However, when we want to establish operations in a given location, we must adapt to local customs. To succeed, we must be perceived as good corporate citizens," emphasizes Carl Brooling.

People tend to be mobile both geographically and in changing jobs, and they are attracted to small companies and start-ups. How can a global company like Ericsson compete?

"Loyalty to the company is not as important as the network to which you belong. The network is that group of people to whom you feel an affinity based on common interests, projects and areas of knowledge that can extend beyond the company's walls. Ericsson can offer the world's most exclusive networks, such as Ericsson Mobility World, where we work with third-party developers."

Carl Brooling believes that there is a culture of sharing within the company and it's a fact that Ericsson is one of the most ardent proponents of standards. Ericsson's employees work extensively in networks and in many cases competitors are also partners. The positive values found in small companies, such as maintaining an overview and short decision paths in daily work, also exist within Ericsson. Ericsson Business Innovation, for example, is like an entrepreneurial company within the corporate framework. Carl Brooling does not feel that people are sufficiently aware of how generous and flexible the Ericsson culture is with respect to sharing knowledge and experience.

In a knowledge society, employees themselves possess the most valuable resources in the form of the knowledge inside their heads. Individuals have a better bargaining position with employers. The days when trade unions and company management were on opposite sides of the table are long gone.

"We need to attract top talent, and we must be able to offer individual and personalized terms of employment. As mentioned earlier, Ericsson has excellent networks, and there are structures within the company that are like small, virtual companies. Individuals who put their heart into their work will receive excellent returns that are perceived as more important than traditional bonus programs and rewards that are only evident on their pay slips."

Appropriate salary

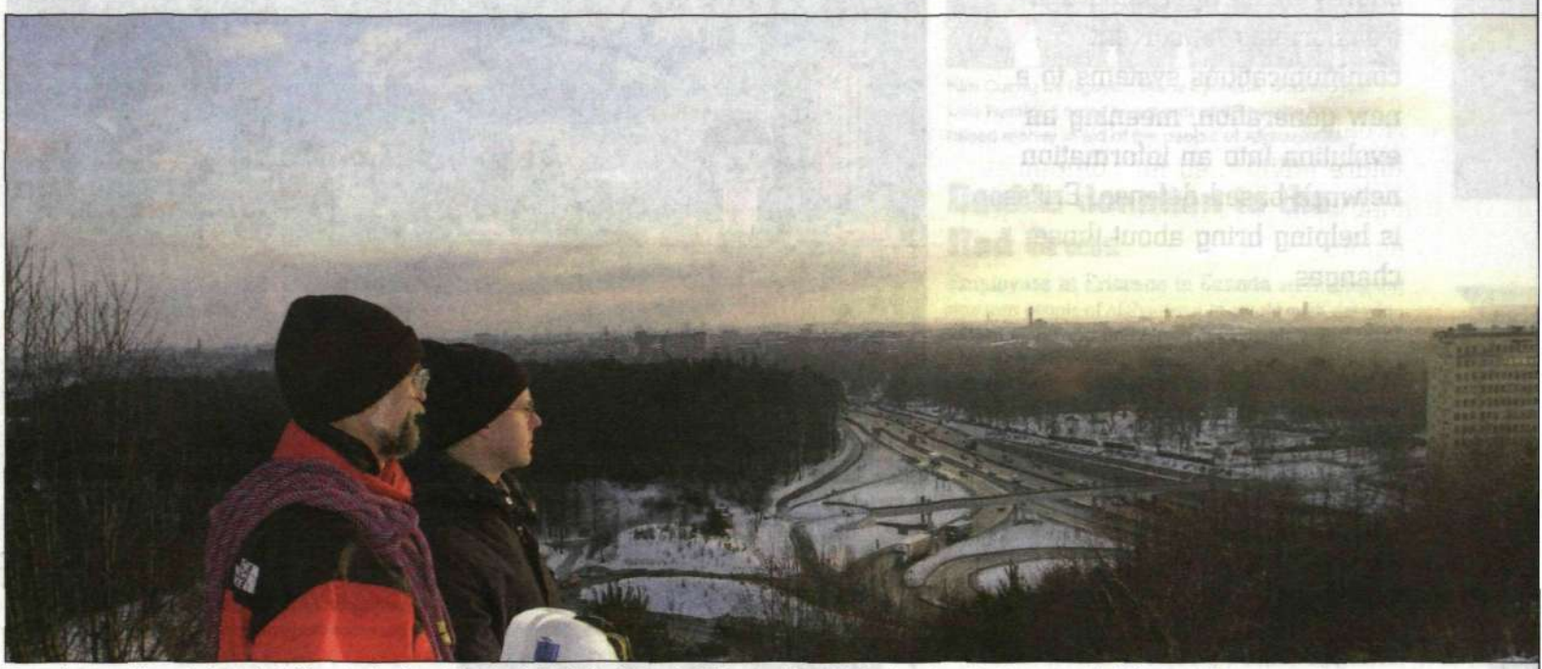
According to all studies, money is still very important in choosing an employer. How does Ericsson react?

"It's a question of balancing different factors from market to market. Ericsson has not previously profiled itself as a high-salary employer, but this is changing. Unfortunately, the perception of Ericsson among outsiders has not changed, but our salaries actually compare well with the competition. Studies show that Ericsson employees consider that they are appropriately paid for the work that they do. People do not leave the company to significantly increase their salaries, but we need to be clearer in communicating that we pay good salaries for good performance."

Many choose a job according to their perception of the company's values. Is the brand, the company's soul, an important variable in the battle to recruit the best talent?

"Everything that we communicate both internally and externally is extremely important for our ability to recruit. Ericsson's fundamental values for attracting talent are professionalism, respect and perseverance, are and will remain the cornerstones in corporate communications."

JESPER MOTT
jesper.mott@lme.ericsson.se



Some day we will reach the end of silicon technology. That day is far in the future, but Ericsson Foresight is already active in research in this area. "Our approach is to select possible future scenarios that we can use as a starting point," says Bernt Ericson and Magnus Karlsson. PHOTO: ECKE KÜLLER

Ready for whatever the future brings

Ericsson Foresight is a small group working at corporate headquarters in Stockholm. The group must have one of the company's hardest jobs. Its task is to look far into the future and make sure that the entire organization is ready for new developments, whenever they may occur.

"While it is true that no one can predict the future, there are always indicators and clear trends to guide us," note Bernt Ericson and Magnus Karlsson at Ericsson Foresight. "Our approach is to select possible future scenarios that we can use as a starting point for working backwards to see what must be started today to prepare us for the day when a new trends gain momentum."

The Foresight detectives see an exciting world ahead that includes many new areas of technology that may have a dramatic impact on Ericsson. Take biotech, for example. Is it possible that tomorrow's Ericsson Research will consist of determined chemists and biologists? At some point in the future, we will reach the limits of silicon technology, and right now the most promising approach seems to be to try to imitate nature and to exploit the complex structure of the brain for tomorrow's adaptive systems. That day is far in the future, but Ericsson is already active in research in this area.

A more down-to-earth, but equally momentous trend is that the focus is shifting from products to solutions. All indications suggest that the future must be more satisfying for the customer.

"This means a totally different mental attitude," says Bernt Ericson. "Fewer and fewer products will be sold individually. Instead they will be included in total solutions that are designed in cooperation with the customer. This means that end users, such as companies, will increasingly shape the products included in solutions. Making this change will take at least ten years, and the time to start is now."

Other examples of projects are tomorrow's workforce (see adjacent article) and future consumers, both of which involve understanding the nature of future social networks. In addition, criteria for determining if an innovation will be successful and how fast the rapidly growing consumer culture in Asia develops and how to provide the four billion people in the world who still lack telecommunications with low-cost solutions.

Long-term perspective

Ericsson Foresight's primary task is to introduce a long-term perspective throughout the organization. In addition, the unit provides material for Ericsson's overall strategy on which the business units' goals are based. Work is also being pursued to renew the company, in part by inspiring new work methods.

To succeed in all these tasks, the Foresight group's work is integrated with the entire organization. Although the unit only consists of five individuals, they work in an extensive network. Some 30 persons act as associates by contributing reports and participating in seminars. In addition, there are a large number of colleagues in the Foresight Community, which participates in electronic discussions and is always kept updated on the latest developments. This is intended to allow all the knowledge found throughout the company to be utilized and to enable the people to be identified who want to work with issues that are crucial for the future.

A compilation of material

Ericsson Foresight does not conduct any research of its own, but rather compiles material on technical, social and cultural trends. Achieving its goals requires new networks and new methods of interacting with a larger community. Ericsson Foresight maintains contact with several leading institutes, foresighted researchers and universities around the world.

"Having access to, and being able to take advantage of, world-leading technology will continue to be a strength. In the future, however, soft values, such as consumer demands, organization and leadership, will be equally critical," says Magnus Karlsson. "Tomorrow's employees will place new demands on the organization, which will become much more dynamic, with structures that are created and dissolved and with teams that are built up around competence and new roles in relation to the market, much like the way we work at Ericsson Foresight today."

LARS CEDERQUIST
lars.cederquist@lme.ericsson.se

inside.ericsson.se/foresight

inside.ericsson.se/foresight/community.htm

Visit Foresight Café after lunch on February 20 at the head office at Telefonplan in Stockholm.

Ericsson on standby

The Swedish Armed Forces will shortly begin upgrading and transforming its current communications systems to a new generation, meaning an evolution into an information network-based defense. Ericsson is helping bring about those changes.

In the future, defense work will be wireless, with the help of Ericsson.

In the future, the man on the ground can be a network unto himself. He might throw a Bluetooth-enabled Web cam around a corner, and see what's there from a display inside his helmet.

That transmission could then be sent to staff support, connected to a WLAN. To consult superiors about a decision, a message is sent to a larger network where strategists can video-conference about what to do next. And it all can happen in just a few moments.

This network-upon-network vision was presented by Ericsson to more than 300 people, including guests from the Swedish Armed Forces at a recent seminar in Stockholm. Representatives from all parts of Ericsson were represented and put their solutions into defense context – from automotive e-services to Bluetooth to WLAN.

Svante Bergh

"The Swedish government will soon state that defense forces should go network-centric. This is the result of four years of work, during which we have spoken to politicians, authorities, and convinced them that this is a way to tackle the future," explained Svante Bergh, Ericsson Microwave Systems.

"Telecom capability will be key for the defense forces when they network. The results are satisfactory and it's cost effective. And the most important actor globally is Ericsson."

Hans Lind, who presented Ericsson Microwave Systems' vision of architecture for communications networks, said the thinking is logical. "We want to use technology from our commercial portfolio, piggybacking development on that for the Swedish defense."

Wireless hockey

During one concept demonstration, representatives from EriSoft showed the ARENA project. An ice hockey player was connected to a local network all of his own, and sensors measured heart rate, breathing, and more.

Wireless connections registered those measurements into a larger network, and then anyone with access to an even larger network could see that information.

In a defense context, it could be a commander keeping track of his men's whereabouts and physical state. "Such equipment would help an individual be more safe, but more dangerous to his opponents," said Hans Lind.

Special defense needs

Svante Bergh stresses that defense projects have two requirements that go above and beyond civilian needs. "The customer is very demanding in terms of understanding operations and having high security. Right now, security is built into 3G systems, but working even more on this factor could give Ericsson the reputation of being the telecom company that specializes in security earlier than others."

DODI AXELSON
dodi.axelson@lme.ericsson.se

Civilian technology helps defense

Ericsson's presentation of its telecommunications solutions, specially tailored to an audience of representatives from the Swedish Armed Forces, appeared to hit its target.

Colonel Jan Petersson, who heads Command and Control for the Swedish Armed Forces, realizes that cooperation with a civilian supplier will be an absolute necessity in the future.

"No armed forces can develop everything themselves. Our goal is to lead the Swedish Armed Forces toward network-centric warfare by 2010."

At the seminar, Petersson acknowledged the possibilities with Ericsson. "Ericsson has the expertise, and we have confirmed that we agree on what goals we have until 2010."

Jan Flodin, Chief Engineer for the Swedish Armed Forces, pointed out that cooperation has already been underway for four years.

"It's been a kind of partnership for the study phase, and then we will create some demonstrators."

Some examples were shown during the day, like a radar reading being sent via wireless technology to a PDA, where one person can both absorb the information and send messages back to a command center.

Jan Flodin has no doubt that Ericsson is the right partner to help the Swedish Armed Forces start using civilian technology for its own communications network.

"Ericsson is Swedish-based and it spans the systems and products that comprise the command and control system of the future – from sensors to the decision-support systems and communication."

"This day really gave us a picture of what we'll need in the long term," said Jan Flodin.

One concern about the general concept of using civilian networks was security. Ericsson's team members answered the questions with confidence, pointing out that 3G applications almost always contain security tools.

Owe Svantegård, host of the recent seminar in Stockholm and Area Manager within the Defense Market for Ericsson Sweden, felt that the seminar was a success.

"There were 310 people here, and they're decision-makers from all branches of the Swedish Armed Forces. We've shown that our solution covers the entire range, and we're the only company in the world that can offer everything from sensors to telecom equipment. We of course hope they'll choose Ericsson to supply their future network."

Owe Svantegård added that cooperation continues and actual negotiations could be more than a year away.

DODI AXELSON

Bridging the digital divide with solar power

Solar-powered base stations are a cost efficient and environmentaly sound way of giving more people access to mobile telephony. This is the conclusion of the report "Solar-powered Mobile Telephony," which was awarded a prize at the EcoDesign 2001 symposium in Japan recently.

Erik Palm

"I think one reason that our report received the award is that it dealt with an innovative solution to a global problem," says Erik Palm, Strategist at Ericsson Mobile Systems in Sweden. He wrote the report together with his two colleagues Flemming Hedén och Asako Zanma.

The topic of the study was SunSite, Ericsson's solar-powered radio base stations that are in operation at over 50 sites in North Africa.

Today only a few percent of the people in Africa have access to the Internet, and half of the worlds population have never made or received a telephone call. The United Nations speaks of a digital divide, where some regions are excluded from the benefits of information technology, and bridging this divide is high on their agenda.

"SunSite helps in this, since one can install the base stations in otherwise inaccessible areas where grid power sources are insufficient or unreliable," says Erik Palm.

One of Ericsson's main environmental goals is to reduce emissions of carbon dioxide, and this is also something that SunSite will facilitate. The report shows that a solar-powered base station under certain circumstances uses less energy than a traditional one.

"The point we are making is that, with SunSite, we can reach more people with our communication solutions, but in an cost efficient way. I am really pleased that we won this prize, it is external recognition of Ericsson's work for a sustainable future," says Erik Palm.

TONYA LILBURN
tonya.lilburn@lme.ericsson.se

www.bcasj.or.jp/EcoDesign/2001/index.html

from the archives

Today is not the only time employees have been encouraged to help the company with cost-saving suggestions. In 1952, there was also a suggestion box at Ericsson, and employees were asked to submit their ideas on how the company could save money. Olga Holm, who applied the lacquer to telephone components, suggested that paper packaging from the factory be used under the lacquering stations, instead of special protective paper. "People are accustomed to using different things for different purposes in their homes, and we can also apply that practical approach in the workplace," she said to Contact. Her clever idea was awarded with a cash payment of USD 5.

Kim Cuong Le Nguyen, Marie Eychene, Sophie Roy, Lais Hamidi, Louise Leonhardt and Sheedar Khan raised money in aid of the people of Afghanistan.

PHOTO: SOPHIE ROY

Double donation to the Red Cross

Employees at Ericsson in Canada are helping the war-torn people of Afghanistan to get through the winter. Over USD 2,500 have been donated to the Red Cross as a result of the fund-raising campaign.

"Ericsson in Canada promised to match whatever we raised, so half of the donation is from the employees, and half from the company," says Lais Hamidi who stands behind the initiative.

Lais Hamidi has first-hand experience of being a refugee. His family fled from Afghanistan in the middle of the 1980's, and eventually ended up in Canada. Now he works as a Network Integrator at Ericsson in Canada.

"I started the campaign not only to raise money, but also to raise awareness on the situation that ordinary people in Afghanistan are in right now," he says.

Lais Hamidi has also volunteered to go to Afghanistan and participate in relief efforts there.

"I have taken contact with Ericsson Response, and now I'm just waiting for them to give me a call if they need me."

T68 soon a genuine luxury item

Ericsson's T68 will soon be available in luxury models featuring solid gold and diamonds. Peter Flaggl of Austria has launched a business concept to produce luxury variations of popular mobile telephone models, and the T68 is next in line. He charges between USD 23,000 and 95,000 for his luxury telephones and, so far, he has sold about ten different model phones.

"The people who buy my telephones are Arabs, Russians, musicians and soccer players, but their names will remain secret," he says to Swedish daily Dagens Nyheter.

The gold T68 will be offered on the market in about three months.

contact

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

ASSISTANT EDITOR
Ingrid Båvsjö, +46 8-719 08 95
ingrid.bavsjo@lme.ericsson.se

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

EDITOR, TECHNOLOGY
Lars Cederquist, +46 8-719 32 05
lars.cederquist@lme.ericsson.se

EDITOR, WORLD WATCH
Elin Dunås, +46 8-719 06 21
elin.dunas@lme.ericsson.se

EDITOR, AROUND ERICSSON
Tonya Lilburn, +46 8-719 32 02
tonya.lilburn@lme.ericsson.se

EDITORIAL STAFF
Lars-Magnus Kihlström, +46 8-719 41 09
lars-magnus.kihlstrom@lme.ericsson.se

Sara Morge, +46 8-719 23 57
sara.morge@lme.ericsson.se

Jesper Mott, +46 8-719 70 32
jesper.mott@lme.ericsson.se

Jenz Nilsson, +46 8-719 00 36
jenz.nilsson@lme.ericsson.se

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

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

LAYOUT AND WEB DESIGN
Paues Media, +46 8-665 73 80

EXTERNAL ADVERTISING
Display AB, +46 90-71 15 00

DISTRIBUTION
PressData
Box 3263
SE-103 65 Stockholm
phone: +46 8-799 63 28
fax: +46 8-28 59 74
contact@pressdata.se

MILJÖMÄRKT 341 Trycksak 068

PRINTED AT:
Nerikes Allehanda Tryck Örebro, 2001

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

CONTACT ON THE WEB
http://www.ericsson.se/SE/kon_con/contact

no. 2
February 7, 2002
contact

PressData
Box 3263
SE 103 65 Stockholm

Hanna Lund and Maria Rudell are working to put the final details in place before the doors of this year's Cannes congress are opened on February 19. The 3GSM World Congress is one of the most important meeting places for key persons in the telecom industry, and has grown considerably during recent years.

PHOTO: ECKE KÖLLER

Cannes congress now a key venue

The 3GSM World Congress in Cannes, on the French Riviera, is becoming increasingly important. This year, approximately 30,000 visitors are expected, including operators from nearly 100 countries. One of Ericsson's primary objectives is to show customers how they can make money from the Mobile Internet.

Ericsson will take part in many activities during the 3GSM World Congress. Services, solutions and real-time demonstrations are to be shown at the company's stand and outdoor pavilion. A number of Ericsson employees will deliver talks and participate in panel debates. Time has also been allocated for customer seminars, meetings with the press and festivities.

The congress will be held during the period February 19–22. About 15 Ericsson employees designated to work with the project are now looking forward to a few intensive weeks. Maria Rudell is one of them. In December, she was appointed Ericsson's overall project manager for the congress, in conjunction with other structural changes.

"The main theme is focused on Mobile Internet and how it can make money for operators. We will show how this can be achieved: our stand will feature demonstrations of solutions and services that can be installed today. In the pavilion, we will demonstrate 3G systems and other products as well as services that will be available in the near future," she says.

Maria Rudell has eleven years experience of working with different types of communication questions at Ericsson. For example, she has worked before and during eight CeBIT fairs.

The congress in Cannes has grown during recent years, and is now one of the most important meeting places for key persons in the telecom industry.

"All of our major customers will be there, including Vodafone, Telefónica and Orange. It's important that Ericsson representatives and customers have the opportunity to meet and talk about business. However, meetings held under more informal and relaxed forms are also extremely important," says Hanna Lund, who is responsible for the customer seminar and social events.

Maria Rudell thinks her role as project manager is exciting, particularly because the work offers her opportunities to meet a very large number of interesting people. She is now working hard on the project to make sure that all last-minute details are addressed.

"Everything must be ready at 10:00 a.m. on Tuesday, February 19," says Maria Rudell, and looks at her watch.

ULRIKA NYBÄCK
ulrika.nyback@lme.ericsson.se

inside.ericsson.se/gsmworldcongress

www.3gsmworldcongress.com

column

LARS-GÖRAN HEDIN
corporate editor

The worst might be over

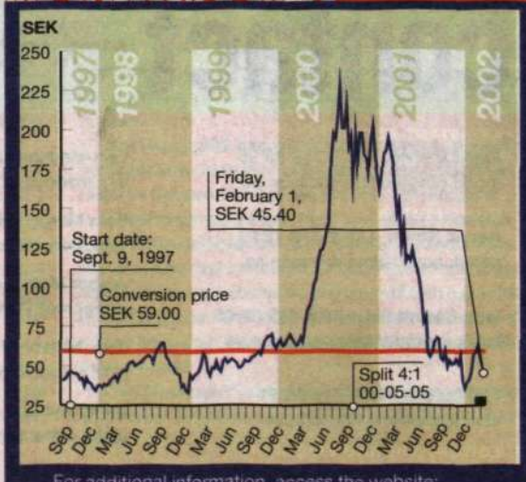
And so, Ericsson has reported its long-awaited record loss. The largest in the history of Swedish industry, it's been said. That's probably true – never before has this company lost so much money in a single year. We must also bear in mind, however, that a substantial part of the loss should also be regarded as an aggressive investment in the future. The drastic restructuring and cutbacks that Ericsson has undergone have cost a great deal of money. Ericsson accepts its responsibility as an employer and, accordingly, earnings have been charged with large sums of money allocated to help those who have been forced to leave the company.

A year ago, more than 107,000 persons were employed in the company. That number has now been reduced to 85,000. Many people remain in different support programs, but I have understood that many people have also found new jobs, started their own businesses or secured their future by other means. The rest will continue to receive paychecks for a few more months, so it will take time before the efficiency program yields its full impact on the company's accounts.

In their comments on the year-end report in this newspaper, several of our high-echelon management representatives have repeatedly talked about how difficult it is to continue to review costs and seek efficiency improvements in parallel with efforts to ensure that important customer care and sales activities are not neglected. In spite of the situation, it should be viewed as a positive sign that Ericsson has managed to emerge as the only major supplier able to generate profitability from its sales of mobile systems, and the fact that we have actually strengthened our market share in the GSM sector. This bodes well as we approach the recovery of the telecom industry that everybody is now anticipating.

We also responded to the challenge that Sten Fornell formulated – to scrape together at least SEK 13 billion in positive cash flow during the fourth quarter. That goal was surpassed by SEK 3.5 billion – which does not include financial activities. The company's independence, accordingly, has been secured for a while longer, and we do not have to – as in the case of some competitors – cater to the opinions of banks on how our activities should be conducted and developed. Ericsson will continue to survive without a guardian!

the ericsson b share



For additional information, access the website: http://inside.ericsson.se/convertibles