#2 • 2011 The magazine for Ericsson employees

Contact

Compete on the 2011 group targets! PAGE 12

TV wheneve they want it

Schoolteachers Russ and Aimee Guldin plan their TV viewing according to how the rest of the day looks. Pages 16-25







HYPER ISLAND IN KARLSKRONA, SWEDEN The school with app lessons on the timetable Page 9



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CONTACT ONLINE -GLOBAL INTERNAL NEWS

Tune in to our global internal portal for the latest news and views on Ericsson and the ICT community.



FRONT PAGE Russ and Aimee Guldin are modern TV viewers. Photo: Noah Abrams







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Contact

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The cloud is on everyone's mind

eople have always talked about the weather when they have nothing else to talk about. But now there's a cloud that has become a serious topic of conversation for many. I'm talking, of course, about cloud services. To keep it simple, the cloud enables us to store information remotely, update it, share it and access it on an external network from any device instead of locally in our own computers. It's not a new phenomenon, and many people use it every day without realizing it. When you upload a photo to Facebook or Twitter, share or watch a video on YouTube, or listen to music on Spotify, you're actually using the cloud.

But for the cloud to work well, we need world-class networks, pipes and uptime, and that's where Ericsson comes in. Our main priority is to secure the quality of cloud services and ensure that the various clouds can be linked together. During this year's Mobile World Congress in Barcelona, the cloud was one of the hottest topics on the agenda. And on the very first day, Ericsson increased the heat by announcing its strategic alliance with the US cloudoptimization company Akamai. Together we'll ensure that mobile operators have the opportunity to offer faster cloud services that are better adapted for mobile devices.

Looking at the blogs published on Contact Online and on Thinking Ahead - our external discussion forum - it's clear that the cloud is a very popular topic of discussion. "The cloud is the key to a networked society," "Mobile cloud acceleration creates a larger pipe," "The cloud infrastructure puzzle: getting a grip on complexity" and "Living the cloud: essentials for the cloud ecosystem" are just a few of the most recent blog posts on Thinking Ahead. The cloud represents both challenges and opportunities for Ericsson and other players in the industry, and as the above headlines reveal, the blog posts address both the positives and the negatives. Why not get involved in the blog discussions? Here's your chance to talk about the weather in a brand-new way.

Log in to EriCOLL to read the internal blogs. Go to *ericsson.com* to read Thinking Ahead.



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Have your say

E-mail us your questions, opinions, reflections or work-related images. We will publish a selection of the material on this page. contact.comments@ericsson.com

FAMILIAR FACES

The editorial team is pleased to announce that we have received

30 and 31 in the previous issue

of Contact. See the responses

The man with the glasses holding the measuring stick is my father,

Ragnar Ericsson. He was manager

Welcome...

of Ericsson in Mexico City until

several responses from people who recognized one or more of the men in the photo on pages

below

Hil



 home, and his office was on the top floor of the tower at Telefonplan for a while, but it was then moved to Gröndal (both in the south of Stockholm). The man with the light, back-combed

1946. He met my mother there.

They had three children: Ingrid,

William and me. Alice. He moved

hair on the far left is Åke Kåell, who was a very close friend of my father.

Alice Andersson, Sweden I recognize two of the people in the old photo-

graph in issue 1, 2011 of Contact. The man on the far left is Åke Kåell, and the older man, with a measuring stick in his hand, is called Ragnar Ericsson. I worked with both of them at around the time the photograph was taken, and Ragnar Ericsson was my boss for a while. Three of the people in the photo are (from the left):

1. Åke Kåell, 2. Leif Branden,
5. Ragnar Ericsson

Leif Branden, Sweden

I definitely recognize two of the people in the photo. On the far left is Åke Kåell, head of the telephone department, and on the right (wearing glasses) is Ragnar Ericsson, sectional manager for telephone mechanics. They, and most likely all the others, were part of the G Division (also called the ERGA Division), which had been moved from Midsommarkransen (south Stockholm) to Gröndal in about 1954. The division worked with telephone sets and private branch exchanges. It was then moved to Bollmora (south of Stockholm) in about 1964. I began there in 1956 and finished in 1997 within the same area.

PHOTO: CAROLA PILARZ

Per Johansson, Sweden





This is how Kista Science Tower in Sweden looked recently, when I was walking to work in the area one morning. The morning light was reflected in the windows in a very strange way. The photo was taken with a Sony Ericsson W595 mobile phone.

Linda Eriksson, Sweden



A beautiful view over the European mountains taken from the plane window during a flight between Frankfurt, Germany, and Naples, Italy. It was captured using my W580i camera – in flight mode, of course.

Reinaldo Morais, Brazil



This is a picture I took just before a hot-air balloon ride in Segovia, Spain, in February. The photo was taken with my Xperia X10 mini pro. Jose Castro, Spain

Web poll



... percent of 300 Ericsson employees say that they sent more than 40 text messages on New Year's Eve.

... to Ericsson, Oscar Olsson

... who recently started working as a research engineer in Kista. **What is your background?**

I studied computer science at the Royal Institute of Technology in Stockholm. In August 2009, I began my Master's thesis work at Ericsson Research Security, where I work now.

What are you doing now?

I work with security for the
Wholesale Applications Com-
munity, a collaboration of mobile
operators and vendors that willWas Er
choices
to choices
be tooloperators and vendors that will
create a new kind of app store
platform. I'm also studying the
downloadable Machine Communi-
cations Identity Module (MCIM),
which began as an internal
research project about eight yearsTags. Not
the studying the
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ago. Now it's almost ready to ship. Was Ericsson one of your top choices as an employer?

Not initially. I thought it might be too big and hierarchical. But when I started here, I got a good feeling. I liked the atmosphere – I was inspired by my colleagues. So I stayed on after finishing my thesis



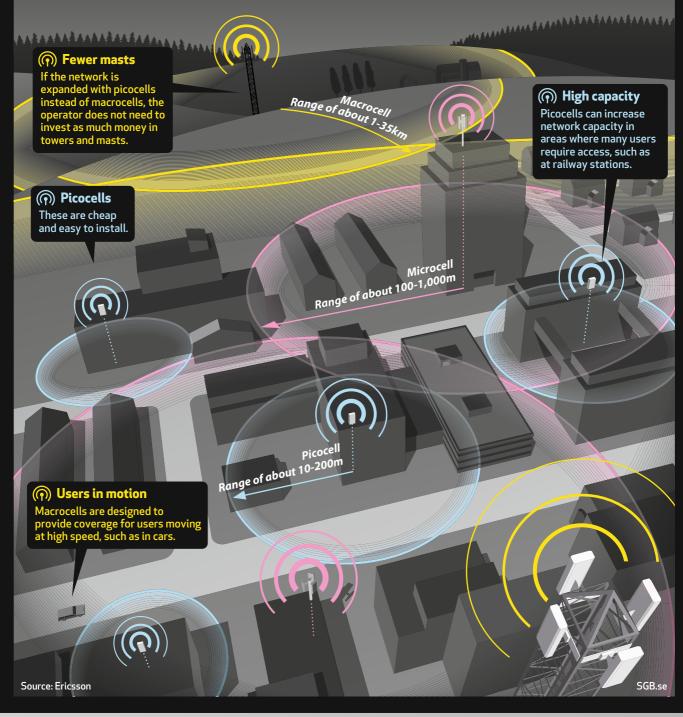
Have you been asked... ...ABOUT HETNETS?

Heterogeneous networks (HetNets)

HetNets are mobile networks in which cells of different sizes, ranging from pico to macro, share network traffic within a given coverage area. Intelligent base stations ensure that data traffic is handled by the appropriate cell.



Picocells are now used in airplanes and boats.



8.46 am / March 29 / Arlanda Airport, Sweden

SE-JJK



Aid to Japan

OSTEL

5

A Bell 205 helicopter is packed into an airplane for transportation to Japan. The helicopter was chartered by Ericsson to assist Japanese operators in the Tohoku region with network-repair operations following the earthquake and tsunami. Damage to roads means that some areas are reachable only by air transport. In addition to the helicopter, Ericsson has sent 150 satellite phones that are being used to coordinate repair work in areas where mobile communication infrastructure has yet to be restored. The shipment also included about 30,000 bottles of shower gel, shampoo and other personal and haircare products from Oriflame.



App gets bad rap

MOBILE APP Vatican City officials are distancing themselves from Confession: A Roman Catholic App, which has, according to several media reports, been launched so believers can make confessions directly through their mobile phones. The app had been approved by the Catholic Church in the US, and many followers interpreted this to mean that the tool could replace the traditional form of confession. But Vatican spokesman Father Federico Lombardi has rejected the idea, saying that a priest must always be physically present during a confession.

Source: Metro.se

Steer clear

TRAFFICSAFETY Talking on a mobile phone while driving can actually improve the driver's concentration if the call is made at the right time, according to a study by the University of Kansas in the US. The study showed that car drivers who talked on the phone towards the end of a long journey focused more on the traffic.

Source: Ny Teknik



Don't miss TECHNOLOGY Håkan

Djuphammars explanation of cloud computing in the video Connecting the cloud under Tech Talk at Ericsson.com.

The veteran employee

Kjell Hansson, Senior Specialist R&D at Enclosure Solutions in Kista, is the longestserving employee in the entire Ericsson Group. And his commitment to product development is as strong today as it was when he joined the company in 1962.

RECORD At that time, Hansson was studying at an integrated vocational school run by telecommunications and computer manufacturer Standard Radio & Telefon, which later became a part of Ericsson.

Engineer

Hansson studied further to become a telecommunications engineer, and got the opportunity to work with article descriptions, product development, radar system equipment and



Kjell Hansson, 63, has worked in the Ericsson Group for 49 years. That makes him the longest-serving employee in the company.

Ericsson's Alfaskop terminal.

He was involved in producing the first cabinet for the RBS 200 radio base station at the dawn of GSM technology, and he also contributed to the launch of WCDMA. "Technology was developing faster than anyone could have imagined," he says. "In retrospect, I now realize the fantastic developments I've been involved with."

RBS 6000

Hansson and his collea-

gues at Enclosure Solutions develop contacts and cables for the whole of Ericsson. The unit produces equipment for RBS 6000 radio base stations and radio remote units (RRUS) for masts, which are expected to be major sellers.

His job requires him to keep in continual contact with subcontractors from all over the world, with the goal of being constantly on the lookout for more costeffective solutions.

Hansson, 63, has worked in the Ericsson Group for 49 years, and he could probably work for many more. But his ambition is to retire when he is 65, which would mean that the person who has worked at Ericsson the longest still has one-and-a-half years to go. ⊠Michael Masoliver

"It's kind of a personal challenge this year; I'm taking an hour a day and I'm learning Chinese. I'm trying to understand the language, the culture, the mindset - it's just such an important

part of the world." Mark Zuckerberg on his ambition to learn everything about the culture of the country where his social networking website, Facebook, remains blocked. Source: Social nomics.net



Ericsson appointed a group of art students from Barcelona to create activity around the welcome area at the company's exhibition stand and to bring to life the company's message of the networked society. The result was the Living Wall, which the artists constantly developed and added to during the four-day event.



Sandra Stadelmann and Carl-Oscar Schauman are students at one of the world's first full-time educational programs in the creation of mobile applications, for which there is currently high demand.

Mobile apps course is a hot prospect

Hyper Island School in Karlskrona, Sweden, provides one of the world's first full-time educational programs in the creation of mobile applications. At the end of 2011, the first 30 students will complete their courses.

APPLICATIONS Apps are hot and according to Charlotte Sundåker,



at Hyper Island. students won't have Sundåker a hard time

Marketing

Manager

finding jobs. "All digital agencies in the world need their skills, and several students have already been courted

by employers," she says. Sandra Stadelmann is one of the students. and she has also noticed interest from the industry. "Companies are calling the school to ask when we will graduate," she says. "There are also many who come here and give lectures to get our attention."

Positive outlook

Carl-Oscar Schauman from Finland took the course largely because of the potential apps have. "I expect great progress in this area between now and 2015," he says. "On graduation, I would like to start my own business and work with project management of mobile applications. I would

like to work in Japan." Schauman thinks he will be able to support himself working with mobile apps, but says that companies need to know more about what is involved in creating

Apps are cool

them.

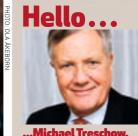
"Many companies think apps are cool – they are something you 'should' have, much like in

Mobile Applications Program

Mobile Applications Program is a full-time course over three semesters at Hyper Island School in Karlskrona. Students learn concept development, design and programming of mobile applications for

the earlier days of the web. But most people do not know what it costs to make an app or how long it takes. One should calculate between 20 and 200 hours of work, and then you can charge around EUR 50-100 per hour (USD 67.67-135.35). For a typical project, the grand total can be around EUR 10,000." 🗵 Anders Jinneklint

Android, iPhone and iPad. Instead of teacher-led lessons, students attend lectures by people from the industry and participate in workshops where students teach each other the finer points of app design.



Ericsson's departing Chairman of the Board. He was in charge of the company during an eventful period lasting almost 10 years, but at the Annual General Meeting (AGM) on April 13, Michael Treschow left his role as Chairman, and was replaced by Leif Johansson. former Group CEO of Volvo. How will you spend the extra time you have now that you're no longer **Chairman?**

I don't know. Recently, I've been focusing on ensuring that the transition goes well - with a successful "graduation day" – a successful AGM. After that, we'll see - it's always fun to do new things.

What was most satisfying about your term as **Chairman?**

That we got through the crisis of 2002-2003 - when the dust settled, it was clear that we were stronger. Our competitors didn't manage as well as we did. Given all the terrible things that happened, which affected so many people, we pulled through very well. I'm also glad I had the chance to work with three different people in the role of President and CEO. I had the honor of appointing two of them, and I feel that my choices were wise. Are there any other **Ericsson memories** you'd like to mention?

There is one success that I like to highlight - when I joined the company, we had a very minor role in North America. Today we're the leader there, and that's a tremendous achievement. 🗵 Johan Kvickström

One in five is a fake

PIRACY Esko Aho, Executive Vice President, Corporate Relations and



ns and Responsibility at Nokia,

says

that one in five mobile phones sold is a pirate copy, and that the problem is global, writes Ny Teknik. Most pirate copies come from China, Europe and Latin America, he says. A study by the research company Gartner found that sales of these phones increased by more than 30 percent in 2010.

SMS does kids no harm

STUDY) A study by the UK's Coventry University shows that, among children, there is no link between the frequent sending and reading of text messages and poor language development. Critics of the trend towards frequent use of text messages by young people have worried that the language used in the messages, which often includes abbreviations and incorrect sentence structure, may affect children's writing ability.

Source: New York Times

Mobiles help to reduce stress

SURVEY The operator Telenor asked smartphone users in the Nordic countries how they spend their time while commuting. One-third of respondents said they felt less stressed because they could surf the web, read e-mail or watch a TV program on the way to work. 59 percent said that mobile internet made it easier for them to stay in touch with friends. *Source: ldg.se*



When it takes too long for webpages to download, people get tired of waiting. Krister Svanbro and Reiner Ludwig from Ericsson Business Unit networks have worked with Akamai to develop an initial solution enabling faster downloads.

ERICSSON AND AKAMAI

First solution out soon

The partnership between Ericsson and Akamai is a reality. Thanks to their cooperation in the cloud, Ericsson and Akamai are due to deliver recordbreaking web speeds to mobile devices. And their first joint solution is due to reach the market soon.

COMPUTER CLOUD There has been rapid recent development on the mobile broadband front, and one key reason for this is the existence of the cloud. In order to be able to offer faster mobile internet, Ericsson picked Akamai – the leading player in this field as a partner.

"This is about two leading players coming together in a strategic alliance and a perfect match, in both the business and technology domain," says Krister Svanbro, Director Systems and Technology of Business Unit Networks at Ericsson, who heads up the technical side of the partnership.

"Akamai brings their expertise and ecosystem for content delivery over the internet, and we at Ericsson bring our mobile broadband expertise and relationships with operators.

"Together we have created a proprietary solution for accelerating content all the way from the cloud to the mobile devices. We believe this is quite unique."

"If web pages take too

long to download on a mobile-device screen, for example, end users will find it tiresome. They will then be very likely to go to another page instead, says Reiner Ludwig, End-to-End Packet Transmission expert at Business Unit Networks, who was among those who took the initiative to establish the project that aims to speed up download times.

Intensive work

A prototype of the joint solution is already running in labs in Gothenburg, and the aim is to launch it in the market during the third quarter. Peter Lithner worked intensively on the project at the Ericsson lab in Gothenburg. He says that everything has gone very quickly.

"One reason that we have been able to work fast is that we have been able to reuse and integrate existing technologies and services into one new solution," he says.

"In the lab, we have put together a complete mobile network – in just the same way as a mobile operator would – with the Ericsson-Akamai solution built in. The cooperation with Akamai has been very smooth, despite the physical distance,"Lithner says.

🗵 Johan Kvickström

Read more about clouds on pages 32-34.

Kids master phones, not tying shoelaces

Young children are increasingly tech-savvy. Nineteen percent of children aged between two and five are able to play games on a smartphone while only nine percent can tie their shoelaces, according to a new survey.

STUDY Internet security company AVG asked 2,200 mothers in 10 developed countries about the technical and traditional life skills that their children have mastered.

Among children aged four and five, 22 percent know at least one web address, 34 percent can open a browser and 74 percent can play an online game. In the same age bracket, 67 percent have learned to ride a bicycle and 53 percent know their home address.

Seventeen percent of children aged two and

three can play a smartphone game, compared to 21 percent of children aged four and five. The study shows there is no difference in the technical skills of boys and girls.

Picture-book app

Klas Fjärstedt, who is responsible for digital media at Swedish bookpublishing company Norstedts, agrees that the technical knowledge of young children today is remarkable.

"For example, we are developing a picturebook app for small children. In principle, a one-year-old can use a picture-book app just as well as a traditional paper picture book."

Fjärstedt does not believe that this development comes at the expense of other knowledge.

"It is the parents' responsibility to ensure



The young are surprisingly tech-savvy today.

that children learn to tie their shoelaces and climb trees, and do not

only use digital platforms," he says. ⊠ Anders Jinneklint



...Veronika Hall, who has been employed at the Ericsson Supply Site in Borås, Sweden, since it opened in 1970. How did you end up at Ericsson?

I was unemployed and LM Ericsson had just opened in Borås. It was different to all the jobs that were available in the textile industry, so it was an easy choice.

What was the site like when you began?

There were mostly women working here; now the men are in the majority.

You received your salary in a blank envelope, and I earned about SEK 7 (USD 1) per hour. Smokers had ashtrays beside them and they smoked as they worked.

Which roles have you had within the company?

l've always worked in production and l've also been on the board of the IF Metall trade union for 12 years as treasurer. What changes do you think have been the most positive?

We now get more information about the work we do. Before, you were assigned a task and you barely knew what it was for. It's also great that smoking has been banned.



... the year the White House got its own website - Whitehouse.gov. Source: Idsearch.com



SMS Just how smart are the autocorrect functions in modern smartphones? For example, how could the word "drive" become "badonkadonk"? And what happened when a woman received a text message from her boyfriend saying that he wanted to buy her a "casket" rather than a "castle"?

At *http://damnyouautocorrect.com* and *www.damnyouiphone.com* (the later only in Swedish), you can read text messages that went wrong – and send in your own examples.

We would also like to see your best text-message mix-ups. E-mail them to sofia.falk@jgcommunication.se. Please include a short description of the context in which the message was sent. Prizes will be awarded for the best contributions.



Seventy-three percent of respondents to an Accenture survey said they use their mobile phones to find information rather than ask staff questions while shopping. How about you?



Luke Rothwell, Dublin, Ireland "I use my mobile phone to buy tickets to popular gigs and events. In the past, I had to go to a ticket outlet. Now all the most up-to-date information is on my phone, so I rarely miss out on bands that I want to see, and I avoid the queues."



Nicholas Smith, Stockholm, Sweden "If I have a question, I prefer to ask somebody rather than find the answer through my phone. It feels more personal and it's easier to get the information I want."



 Sean McGowan, London, UK
"I travel regularly to Asia. Not everyone can understand English, so I use my smartphone to keep track of delayed or cancelled flights and trains."
E Editorial Services

FACEBOOK PLACES

All roads lead to location app



Necessity is said to be the mother of invention. But sometimes the challenge presented by a tricky situation is simply met by using an existing innovation. This was Alessio Antolini's experience.

APPLICATIONS Rome in

October. Alessio Antolini is riding his motorcycle, a powerful Kawasaki, on the Great Ring Road surrounding the city. He is on his way home from work as a software architect at Ericsson.

Engine failure

Then the problems begin. The engine starts to stall and, right in the middle of rush hour, it grinds to a halt. Antolini rolls his two-wheel powerhouse to the hard shoulder and starts to wonder: "How can I fix this?" He begins by using his mobile phone to scan for workshops in the area.

"But breakdown services in this area are very costly," Antolini says. "It can be up to EUR 400 just to get the bike picked up; then there are the repair costs... I felt I had to come up with an alternative."

Who to call?

So Antolini racked his brain. In his pocket was, of course, his mobile. But who should he call at a time like this?

"The only friend who spontaneously came to



Engine failure during rush hour. Alessio Antolini got help from a friend thanks to the application Facebook Places.

mind lives on the other side of Rome, and asking a friend to come all that way is a good way to lose a friend," he says with a laugh.

Facebook saves the day

"I use Facebook on the mobile, and I started to think about its positioning functions. So I began by identifying exactly where I was and published the information on Facebook with the message that I was stranded and needed help. Then I used the app that maps your friends, so you can see who is the closest."

It didn't take very

long for a friend from the Facebook list to get in touch.

"A friend responded using the instantmessaging feature, saying he was in his car just a kilometer or so ahead of me. So he turned off at the next exit and found me 20 minutes later. Together we were able to take the bike to the nearest mechanic for

Facebook Places: the facts

You can check in to Facebook Places using your mobile phone. All your Facebook friends can then view information on your location, and you, in turn, can look for friends who are using everything to be sorted out."

Before this incident, Antolini had not used the positioning capability on his mobile. But now he's really got a taste for it.

"If I visit a museum or have a coffee in town and want company, it's easy to arrange now. But if I want to be left in peace, I can always just turn it off." Johan Kvickström

the same function. In addition to providing real-time information, Facebook Places stores data, so the user's movements can be tracked.



Luxury on the line

LOOKING BACK In 1929, the French art deco was the world's most popular design style following its breakthrough at the International Exposition of Modern Industrial and Decorative Arts in 1925. At the end of that decade, Ericsson produced this sophisticated telephone, a refined version of the steel-plated desk telephone from 1909, which can be seen in the background. This new art deco phone was intended to leave the impression that its owner led an exclusive and fashionable upper-class life.

The phone was called Wz, after Karl Fredric Wincrantz, who was Ericsson's president and CEO at that time. Few units of the phone were ever produced, but it was often used in advertising campaigns to raise the profile of Ericsson phones. Source: The National Museum of Science and Technology

"Technology is a way of organizing the universe so that man doesn't have to experience it." Mother Theresa.

Know the targets!

CONTEST How well do you know Ericsson's Group Targets for 2011? Test your knowledge by answering the five questions below. Ten entries with all the right answers will be drawn from a hat and receive a copy of the Ericsson book, Changing the World.

 Name the two dimensions in
Employee motivation.
"Deals in Strategic Areas" includes six strategic areas.
Name three.

B. How can you contribute to improving the Employee Motivation Index? Name the model

4• that is used to



measure progress in the Ericsson Leadership Index and exactly what the model measures. **5.** Name at least five of the 12 Group Targets for 2011. **Send your answers to contact.comments@** ericsson.com by May 16, with "Readers' questions" as the subject heading of your e-mail. Good luck!

You will find the answers here: internal.ericsson.com/ page/hub_inside/company/ management_and_control/ targets_results.jsp

Tips from the blog archives

Convergence within telecoms and the internet by Jan Gabrielsson, Software Strategy Expert at

R&D in Kista.

https://ericoll.internal.ericsson.com/sites/erajgab

Product architecture and agile ways of working

by Software Designer Larry Cai at Ericsson in China.

https://ericoll.internal.ericsson.com/sites/rdccaiy

More software

Developments, productivity and quality form the background to the blog by Michael Williams, a developer at Design Unit Radio (DURA) in Kista. https://ericoll.internal.ericsson.com/sites/SW_Development_-Quality_and_productivity

All of these blogs are available in one place at: https://ericoll.internal.ericsson.com/bloglibrary If you have tips on good internal blogs, please e-mail them to: contact.comments@ericsson.com



Products for the planet

STUDY A new study from Greenpeace ranks electronic products according to environmental sustainability, reports Metro. The products, which were selected by their manufacturers, were assessed according to the amounts of dangerous chemicals they contained, their energy efficiency and the length of their life cycles. A total of 18 companies took part in the study, while two others declined to participate (Apple and Philips). Here are the mobiles with the best environmental sustainability ratings:

1. Samsung GT-S7550 2. Sony Ericsson Elm J10i 3. LG Electronics GD510

Source: Metro

IBM beats its own record

PATENTS For the 18th consecutive year, IBM is number one in terms of patents registered worldwide. The company registered 5,896 patents in 2010, while Samsung was in second place with 4,551 patents, and Microsoft third with 3,094 patents. Source: Cnet.com



sages while driving.

Source: Pew Internet

13

INTERVIEW: AMARJEET SINGH GADHOK

The man who makes it happen

Amarjeet Singh Gadhok is achieving something that many other customer unit heads at Ericsson struggle with every day: he's selling a broad range of **multimedia services**. And he's doing it in a market that doesn't even have access to 3G yet – India.

any people see India as a difficult, complex market. For example, Ericsson's sales of products and services are hindered by the security checks required by the Indian authorities. All telecom suppliers must undergo a security-classification process. However, India also offers almost unbelievable potential. Subscription growth rates in mobile telephony are unparalleled, and the population does not yet have access to 3G technology.

Amarjeet is Customer Unit Head in India for the Malaysian-owned operator Aircel. By selling Ericsson's multimedia solutions, services and network solutions, he has turned Aircel into a high-growth customer for the region.

What was the challenge, and how did you do it? "Aircel has almost 50 million subscribers, which makes it India's fifth-largest GSM operator. In January 2009, Aircel wanted to invest in developing its data-services operations. Data traffic makes up about 35 percent of ARPU for Aircel owner Maxis in Malaysia, but for India the figure is 16 percent – the goal is to increase it to 30 percent by 2015. Aircel wanted to know how we could support that investment in data.

"Initially, I focused on listening to the customer. I took structured feedback from the CTO and other key stakeholders on the challenges faced by them and the support expected from Ericsson.

"The initial feedback meetings were essential to ensure that we had a clear vision of our customer's needs and requests, and to make sure that we aligned ourselves with their priorities."

What did you conclude?

"We realized that the customer already had a lot of multimedia services and products supplied in year 2004-2005 that were just gathering dust. So in 2009 and 2010 we upgraded the existing systems and sold several other multimedia products and services, thereby helping Aircel to sweat their assets

"The first thing I did was to put together a team of people who were competent and go-getters."

and generate more revenues. We improved overall customer satisfaction and increased our lead over the competition.

How did you make that happen?

"The first thing I did was to put together a team of people who were competent and go-getters. Then the focus was on just one thing: to deliver on the promise. We went out of our way and walked the extra mile to meet customer expectations, thereby winning the customer's confidence in Ericsson. If there's one quality I want my employees to have, it's the ability to make things happen."

Isn't it difficult to sell multimedia services in India?

"Yes, selling multimedia is a completely different ballgame from selling network equipment. It requires good understanding of customers' marketing and business plans, customers' product plans and our ability to meet their end-user requirement through a consultative approach. It requires a different engagement model with the customer that means engaging more with product and marketing teams apart from network teams. Our competition in India is very tough on account of local software companies offering solutions at very competitive price levels. Multimedia deals involve relatively minor transactions, maybe USD3-5 million, compared with deals worth several hundred million US dollars for a larger network."

What impact has the success with Aircel had on Ericsson in India?

"What we achieved together with our customer was enormous growth in their data traffic, as the number of unique data users increased from only 30,000 in 2009 to 5 million by the end of 2010, all supported by Ericsson Multimedia platforms. We increased the Customer Unit Aircel Multimedia net sales significantly from 2009 to 2010.

"When I started working as customer representative for Aircel, we weren't the operator's preferred partner, which we are today. In October 2010, Aircel awarded 3G contracts to various vendors, and we won six of their 13 regions. Meanwhile Nokia and Huawei received three regions each. In terms of money, we got 60 percent of total capex and opex spent by Aircel on 3G. There's no doubt that we're the largest 3G partner for Aircel."

🗵 Text: Johan Kvickström Photo: Jesper Frisk

14

AMARJEET SINGH GADHOK

- ► Age: 45
- ► Lives in: New Dehli
- Current position: Customer Unit Head Aircel
- Family: Wife and two children
- ► Favorite mobile services: Mobile Music and MMS
- Other: Amarjeet Singh Gadhok has more than 20 years' experience in the business, and has held a series of managerial posts at Ericsson, including positions as Key Account Manager for Birla AT&T (IDEA), Hutchison India, Country Manager in Sri Lanka, and VP Services, Market Unit India.

Off in the car on a Saturday shopping trip with her husband Russ, Aimee takes the opportunity to watch her favorite show from the comfort of the passenger seat.

TV TRANSFORMED



Aimee and Russ Guldin from Chicago are dedicated **IPTV subscribers**. They can watch anything they like, whenever they like – and still **have time** to do many other things.

Tuned in on their own terms



n the middle of the fifth period at Eisenhower High School recently, teacher Russ Guldin was reminded that he was missing a big game with his favorite hockey team.

"Now, all the kids know I'm a huge Chicago Blackhawks fan and one of my students said, 'Hey, Mr. Guldin, aren't the Blackhawks playing St. Louis right now?" Russ remembers. "The game was going to start in five minutes and I had forgotten to set the DVR (digital video recorder)."

At that moment his students got a sneak preview of the possibilities of a connected home.

Russ and his wife, Aimee – both English literature teachers – had bought an AT&T triple play bundle when they moved into their new home on the city's South Side last year. The couple gets fixed broadband, mobile telephony and AT&T's IPTV service, U-verse.

"One of the great things about U-verse is you can program your DVR from your smartphone, so I pulled out my phone, went into the guide, and in one click I programmed the DVR to record the game – just minutes before faceoff," he recalls.

Russ laughs as he remembers the students' reaction: "They said, 'You can do that? Awesome!'"

Russ, like many Americans, grew 🕨



At the supermarket, Aimee checks the U-verse on-demand guide to see what new movies are available. The remote function in her mobilephone enables her to set the recorder so she can view her content on her own schedule.

"The mobile TV is great for when you're going to be spending a lot of time in the car" Aimee Guldin

Did you know...

that TV subscriptions have surpassed advertising as the primary source of global тv revenues? According to **French** research firm IDATE, pay TV now generates 48 percent of the TV sector's revenue, as opposed to 43 percent for advertising.

▶ up with TV. "It was used in our house as a way to pacify the children," he remembers. But Aimee is more of a late adopter. Growing up, the children in her household were restricted to one hour of TV per week.

Today it's a different story. Settling into a plush sofa facing a highdefinition plasma screen TV in their living room, Aimee says that both she and Russ are not only voracious readers but also "avid TV watchers." Together they follow five series in the current TV season, in addition to on-demand movies and content that each of them seek out individually.

"Once I start watching a show, I watch that show – I don't miss it," she says. "And the DVR makes things that much easier." Time-shifting has liberated millions of people from shaping their routines around broadcasting schedules, and the Guldins are no exception. They are among the 70 percent of internet users in the US who, according to Ericsson ConsumerLab, download or watch recorded broadcast TV every week. Aimee estimates that 75 percent of the couple's video fare is recorded, and another 15 percent is on-demand.

"We leave for work at 6.30 in the morning, and it's hard to stay up late to watch our shows. We eat at five, and then watch shows afterward – right here on the sofa with our laptops, marking papers or recording grades on the school server," Aimee says.

With a baby on the way, the two of

them hope to benefit even more from the flexibility and control over content that their subscription provides.

Chicago is a cold place in the winter. Opening out onto the expanse of gigantic Lake Michigan, the long, straight streets of the metropolis become fierce wind tunnels and your sole refuge is inside your home or inside your car. Pile on the long driving distances – and travel times – and it's easy to see why Chicagoans like having the comforts of home in their automobiles. So, as Russ prepares to drive to the shopping mall on a snowy Saturday morning, Aimee picks up her smartphone and pulls an episode of the mystery series "Castle" from the U-verse DVR.

While Russ concentrates on the

TV TRANSFORMED

road, she tunes in to the show. "The mobile TV is great for when you're going to be spending a lot of time in the car," Aimee says. "It's also useful for when I take the train into the Loop (Chicago's city center) or while traveling."

Russ takes note of the ways U-verse has changed daily routines. "Prime time doesn't have the same importance it used to have," he says. "We don't have to run home anymore."

The mobile functionality Russ and Aimee depend on is one of the key attractions of U-verse. Ericsson played a critical role in bringing U-verse content to subscribers' mobile phones.

Ericsson's Multimedia and System Integration sales lead for this solution for AT&T, Srikanth Jayaraman, says

the company designed it to integrate third-party middleware and TV components with Ericsson's Content Management system and other soft- Srikanth ware. "We can use this

Jayaraman

as a success story to show other TV customers around the world how we can work with third party products," Jayaraman explains. This is a key component of a larger Multimedia, Systems Integration and Hosting business that the AT&T customer unit has built over the past couple of years.

Jayaraman says Ericsson impres-



The latest televised hockey match is screened on the couple's computer while they prepare their dessert.

sed AT&T with its knowledge of the operator's fixed and mobile networks, and brought together its U-verse and mobility organizations for the first time. "This is the kind of cross-organizational project we will see more of as we connect 50 billion devices," he says. "It's a little taste of the connected home."

Maria Dillard, who is responsible for Product Realization and Vendor Management for U-verse at AT&T, says that the company has "leaned on Ericsson a great deal."

"Ericsson has been a tremendous partner," Dillard says. "They provide a system integration role and new applications and tools that enable U-verse to bring in content in a very efficient way, and to use that content across multiple screens."

U-verse's subscription price and content were what initially caught the Guldins' attention, but what sealed their decision was the chance

TV AWARD WINNER ON HIS OWN CONCEPT

BRIAN RING, Head of Global Market Development, won Business Unit Multimedia's BMUM Innovation Competition award for TV & Media 2010 for the service he has created for TV operators: the Enhanced VOD&DVR (video-ondemand and digital video recorder) Web Services Toolkit.

Why should operators buy this solution?

"The key advantage that over-the-



top video services have right now is search, discovery and social applications. We add these things on top of the existing

advantages that most pay-TV operators have in terms of content catalogs. TV operators in the US that are building similar user experiences have had great success with them, including Verizon and Comcast. This takes it one step further."

What are the end-user benefits?

"Simply put, they get a much better TV experience with far less work. For example, the toolkit eliminates scrolling through awkward grids and surfing thousands of titles alphabetically. It enables users to enjoy far more content from the same TV bill by surfacing titles that broadcast at odd hours and recording them. It enables end-users to purchase video content as gifts for their friends

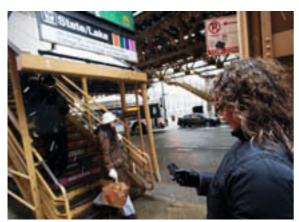
and family, and it allows more sophisticated DVR recording conflict resolution (when multiple recordings are scheduled at the same time)."

When will the solution be released on the market?

"We are seeing more and more requests for social TV experiences. I hope we can work with an operator in the next 12 months to get this into a lab trial."

Anders Jinneklint

"I'd like to receive text messages on the TV screen"



Chicago is one of 136 markets in the US where AT&T has launched its IPTV offering, U-verse, which enables subscribers to view their content across fixed and mobile screens.

Did you know...

that Austria has a 68% subscriber growth despite being a new player in the IPTV segment during Q2 2009-Q3 2010? to buy internet, telephony and TV in one competitively priced, reliable and well-supported service bundle. "We had everything split up," Aimee says. "We had a cable provider for TV and AT&T for phone and internet. Going to one company for all three made more sense."

They knew they would get the content they wanted, but could not foresee how much they would come to value accessing it on multiple screens. Back home from the supermarket, Russ places a laptop on the kitchen counter so he can watch a bit of last night's Blackhawks game as he helps put away groceries and fix a snack. "I'll record tonight's game too, and see it when Aimee is watching one of her movies," he says.

Returning to the living-room sofa, their thoughts turn to the school and the classroom, where both think IPTV has a definite role. "It would be great to instantly pull multiple on-demand film versions of Hamlet and show how different actors for example deliver the 'To be or not to be' soliloquy from act three."

That's where IP-enabled TV will become useful in schools, Aimee predicts. "There's this great program called Who Killed Julius Caesar? that someone taped a couple of years ago, and it's floating around the classrooms on this beat-up VHs tape. There's no way to transfer that, so when the tape – or the VHs player – finally breaks, the kids won't be able to watch it anymore. That wouldn't happen with a cloud based library." History, English and science are just some of the areas in which Russ sees applications for U-verse. His tastes in TV run to documentaries that examine these topics, and he shows us the basement room where he takes it all in – along with hockey – on a large screen.

At that moment, a message appears on the screen, notifying Russ that a sales call is coming in on the landline. Little touches such as these invite the couple to entertain the possibility of networking all of their household devices.

"We already have a synched shopping list on our mobile phones," Aimee says.

Russ adds: "I'd like to receive text messages on the TV screen."

For now, the Guldins find U-verse perfectly suited to their lifestyle, and they believe the technology will continue to evolve to meet their changing needs.

"I think it's very convenient. Because of U-verse, TV has become so seamlessly interwoven into our life.

"It enables us to make more time for other things."

I Text: David Callahan Photos: Noah Abrams

THE SECRET BEHIND THE SUCCESS OF U-VERSE

At a time when US cable providers are hemorrhaging subscribers, AT&T is doing something that was unimaginable 10 years ago – it's transforming itself into an entertainment brand.

AT&T'S U-verse IPTV service gained an additional 1 million subscribers in 2010, growing at a faster rate than any other TV service in the US. In March, U-verse was awarded Best Multiscreen TV Experience at the IP&TV World Forum in London.

Maria Dillard, who is responsible for Product Realization and Vendor Management for U-verse, says that AT&T's ability to shake up the US TV market lies mainly in providing "a multi-screen experience" to subscribers.

"There is certainly a change going on in the industry," Dillard says. "Customers want content on their own terms – when they want to view it, and on a particular screen.

"So many of us are mobile; we don't have as much time to watch TV in the home," she says. "Customers want to be connected, but they don't just want to be connected within the home."

Dillard says that AT&T's ability to "quad bundle" fixed and wire-

less voice, high-speed internet and TV on one bill gives the operator an important advantage. Plus, the U-verse matches or betters the cable experience at every turn. "U-verse offers not only the multi-screen experience but also better DVR than cable, interactive apps and features, and more HD channels" she savs.

U-verse Mobile is available to all AT&T Wireless subscribers, but is offered free of charge to U-verse Home subscribers for DVR management. Mobile video is included in the higher-level subscription packages, U300 and U450. Dillard says "a high percentage" of subscribers take advantage of viewing on their mobile devices, with subscribers mostly pulling down news, sports and the episodic TV shows that US content providers release each autumn and spring.

The operator made the mobile platform even "stickier" by making it possible for users to not only search the program guide remotely, but also control their DVR from their mobile phone, PDA or tablet.

"What's key is that devices continue to improve and give great quality on the small screens, as well as the larger tablets," Dillard says.

1.1

AT&T's U-verse IPTV service is capitalizing on changing TV consumption patterns in the US. Maria Dillard of AT&T says the multi-screen experience differentiates AT&T's highly successful service.

->>> IP&TV World Forum in London >>>>



TV TRANSFORMED

Viewers are the stars

Hundreds of content and service providers descend on London each year for the IP&TV World Forum. The big VIP at this year's forum was the consumer.

packed room listens intently on the first morning of the IP&TV World Forum as Ian Mecklenburgh, Director of Consumer Products, Virgin Media, UK, delivers a presentation on hybrid cable. Midway through his remarks, Mecklenburgh pauses to put things in perspective.

"As a cable operator our customers are not early adopters. They're not geeks," Mecklenburgh says. "They are people who buy television primarily to watch television. So this isn't about making a fantastic gesture-based interface. Instead, this is saying, 'Let's think about people who ... just want to sit on the sofa and have TV delivered to them."

For all the attention paid to exciting new IPTV technologies, discussions at IP&TV World Forum repeatedly returned to the fact that consumers can get video from a head-spinning variety of distribution channels, and they can watch it on a fast-growing number of devices. The consensus is that whoever understands the consumer best will be the winner in this intensely competitive area.

At the bustling Ericsson stand, where visitors view demonstrations of Ericsson's entire end-to end-TV solution, Giles Wilson, Head of Technology, Solution Area TV, seems pretty confident he knows who has the winning solution (*see full interview on page* 25). Wilson had spoken earlier at the plenary session to share Ericsson's insights on the market and the future of the industry.

"This year's forum is all about understanding what people really want from their TV services and how much they are willing to pay for it, especially when they can access content online for free," Wilson says.

Surrounded by ubiquitous, oversized plasma displays, exhibitors are quick to point out the advantages of smart TVs and TV applications, over-the-top and multiplatform TV services and hybrid cable. As TV over IP evolves, the forum attracts a wider range of stakeholders, says Gavin Whitechurch, Conference Director for IP&TV World Forum.

"TV is becoming compelling to an increasing number of service providers," Whitechurch says. "Not only

Lights, camera, interaction!

What does an interactive, multiscreen experience look like? Live and Lost with Blackberry, a program that aired on Channel 4 in the UK in 2010, offers an insight.

LIVE AND LOST with Blackberry was presented at this year's IP&TV World Forum as an example of best practice for distributing content across multiple platforms. The TV series, in which three up-andcoming British bands were given only GBP 20 and a BlackBerry Torch before being abandoned in different locations around the UK, made the handset the hero. With the BlackBerry as their only communication tool, the bands then had to trade gig tickets for food, shelter and transport.

Live and Lost with Blackberry was billed as the UK's biggest interactive tour. Audience interest was sustained for the duration of the series, with aggregated content from BlackBerry Messenger, Flickr, Foursquare, Twitter and YouTube posted on the BlackBerry UK Facebook page.



A display at IP&TV World Forum shows the latest 3-D glasses for TV.

have telcos widely deployed TV services over their IP networks, but cable companies are increasingly adopting IP."

However, it was evident that the success of any IPTV offering rests most heavily on providing a high-quality user experience that suits the individual customers' viewing requirements. Some of these requirements include getting what they want, when they want it, and often paying little or nothing for it. Others include their growing expectations for high definition (HD), 3D and interactivity, plus flexibility and reliability.

Sezmi CEO Buno Pati's presentation on his company's broadcast, cable and internet content solution underscored the importance of ensuring consistency in content, functionality and personalization across all devices. "Even if they're on the go, Sezmi users have easy access to the same set of personalized content through their own personal user login."

The need to offer content on multiple devices is something IPTV operators are acutely aware of, given

"TV of the past was technology orientated, but today it is all about being experience orientated"



At Ericsson's booth visitors could experience the company's all-in-one TV solution. Business builders, such as Mia Blomberg (left), showed the latest technology to prospective customers.

Did you know...

that Ericsson won IP&TV Industry Awards 2011 in the category "Best Multiscreen TV Solution Award" with Ericsson Multiscreen TV?

DON'T MISS!

Hans Vestberg's keynote speech at this year's MIPTV on YouTube: http:// korta.nu/muqsr ▶ the success of online-video services such as Hulu and iPlayer.

Sefy Ariely, Vice President of Sales and Marketing for IPTV middleware provider Orca Interactive, said in his presentation that he believed pay-TV operators are perfectly placed to embrace over-the-top (OTT) services, and should look at OTT as a means of increasing revenues and reducing churn. "When premium content can be accessible from various sources, it's not about the content any more, it's about the experience surrounding it."

Wilson agrees. "TV of the past was technology orientated, but today it is all about being experience orientated. Service providers are bundling services to combine entertainment data, recommendation and search to create an easy, enjoyable, personal TV experience."

The end-user experience is so

important that even advertisers are making sure they give the viewer options. When a Coca-Cola advertisement appears on Hulu, for example, the viewer gets the option of watching one of three ads for the company's products. The advertiser gets a more personalized, effective commercial targeted at the right audience, and the viewer gets content that is relevant. Hulu Senior Vice President Johannes Larcher says that, according to data from ratings agency Nielsen, such ads are 55 percent more effective than traditional linear-TV advertising.

This is just one reason service providers need to optimize their current solutions for adaptive streaming applications, Larcher says. This means that the server should be able to perform end-to-end congestion control and quality adaptation to match the delivered stream quality to the average bandwidth available. By doing so, operators are able to meet demand for ott and mobile tv services, and to manage the complexity of multiscreen, thus improving the viewer experience.

At the same time, consumers' – and operators' – expectations continue to rise.

An eager member of an audience listening to Alan Delaney, Head of Business Development and Marketing, IPTV & Connected Home, Solution Area TV, couldn't wait for the Q&A portion of the session, demanding from the back of the room when Ericsson would be bringing out a voice-enabled remote.

Delaney could only laugh: "I think that's looking too far into the future. But anything is possible."

Text: Sophie Bennett & David Callahan Photo: Amy Parton

Four hot topics at the forum

1. Multiscreen TV Just what it says: TV on any screen. Pretty much everyone agrees it's the future of television.

2. Hybrid TV Delivering services via satellite and IPTV simultaneously, on a single set-top box. Combines two potent distribution channels cost-effectively and speeds up an operators' time to market.

3. IP Over Cable A relatively new theme at this year's event. The solution for a sunset analog technology. 4. Over-the-top (OTT) TV

Distributed via the internet directly to consumers. As more services target internetconnected TVs, OTT is expected to continue as a disruptive market force for the foreseeable future.

TV TRANSFORMED

'We are the most feared player'

complete understanding of what consumers want and what they are willing to pay is crucial if Ericsson is to succeed with its IPTV offering, says Giles Wilson, Head of Technology, Solution Area TV at Ericsson.

Who are the biggest competitors in the IPTV/ mobile TV market?

"In the IPTV space our two biggest competitors are Microsoft, which already has a large part of this market, and, increasingly, a traditional Ericsson competitor: Huawei.

"Having some traditional and nontraditional competitors across our entire TV portfolio highlights that Ericsson is the one supplier that has a broad portfolio – hence the diversity in our competition." Where is Ericsson currently positioned in the IPTV market?

"We are clearly a newer entrant within IPTV, but I believe we are the player that is most feared by the competition because we are constantly innovating. We have a strong focus on next-generation user experience and we have an open platform." *What about the future, looking ahead five years?*

"Our ambition is to be a 'change agent' in the TV industry; to not only be one of the largest technology and solution providers, but to have a clear role as a thought leader within the industry that provides insight into the TV business in general."

What needs to be done to get there?

"To achieve future goals we need more traction in IPTV, in particular more key deals to penetrate the operators with the largest TV subscriber bases. The top 20 IPTV operators have the largest share of IPTV consumers at the minute and we need to get our IPTV solution to more of them. We also need to expand further into cable."

What are the major characteristics of the successful operators, such as AT & T?

"That they move away from pure IPTV to multiscreen user experiences, so the ability to access TV services not just from set-top boxes and TV but also from game consoles, mobile phones, PCs and laptops. I think the thing to recognize with IPTV is that it's always a competition to win consumers from someone else. You need to steal those consumers away from traditional players and give them something they can't get from their traditional services. This boils down to those multiscreen user experiences and much more advanced interactive user experiences."

Who has the winning IPTV solution? "We do. There are some bene-

fits to being a slightly later entrant, and what we are doing is very compelling and innovative, especially with the consumer insight that we have from Ericsson ConsumerLab studies. We have developed user experiences and multiscreen delivery capabilities that surpass anything the competition has.

"I believe we have the broadest and deepest portfolio of solutions as a supplier in

tions as a supplier in the TV industry, and because of that we can be a true partner to our customers. In particular, we can benefit from innovation and technologies across all of our different customer segments. These include not only IPTV and mobile TV with telcos (operators), but also cable, satellite and terrestrial broadcasters and other media companies."

Text: Sophie Bennett Photo: Amy Parton Giles Wilson, Head of Technology, Solution Area TV, at Ericsson. Martin Dermark, Robin Björnberg and Bahar Motlagh in the hardware lab with some of the modules they're working on.



MOBILE BROADBAND MODULES

Where the vision **becomes reality**

Mobile Broadband Modules has a key role in realizing Ericsson's vision of a world with more than **50 billion** connected devices.

ear Gothenburg's Lindholmen Science Park, Mobile Broadband Modules hosts customers regularly from all over the world. They come here to provide feedback and discuss their plans for the future. So it's not unusual for representatives from companies like HP or Toshiba to rub shoulders with the nearly 200 Ericsson personnel employed here.

The Product Development Unit, which was formed in July 2010, manufactures the small built-in broadband communication modules that are found in more than 100 kinds of notebooks from companies such as Acer, Dell, HP, Lenovo and Toshiba. Mobile Broadband Modules also works closely with giants like Google, Intel and Microsoft to ensure that its modules are compatible with their products and ecosystems. The modules make it possible to weave communications into consumer electronics (CE) and other machines that require a built-in internet connection, on a large scale and at a low cost.

One of the Product Development Unit's first customers, and today one of its biggest, is the computer manufacturer Lenovo, now perhaps best known for its ThinkPad laptops. Mobile Broadband Modules supplies broadband modules that Lenovo builds into its products. Customer Program Manager Mirjana Feldt is responsible for the unit's technical relations with Lenovo, and she says that their contact with Lenovo is wide-ranging.

"My job is largely about building

relationships (with people at Lenovo) and making sure we have the same vision," Feldt explains. "I work with the organizations at Lenovo that handle design, supply and manufacturing, but I also work with the top managers who are responsible for decision-making. That means I'm involved in a range of different issues, from the technical planning of computers to the manufacturing itself."

One of her most important contacts at Lenovo is Kazuo Fujii-san, Manager Wireless Communications Technology. Fujii-san is responsible for wireless communication for ThinkPads. He

recently visited the Mobile Broadband Modules facility in Gothenburg to offer his thoughts on how Ericsson is doing, and to explain Lenovo's plans for Kazuo the future. Fujii-san says



that his company's collaboration with Ericsson is vital.

"3G communication is becoming increasingly important, and with Mobile Broadband Modules' help, we've been able to build it into our ThinkPads very smoothly," he explains. "Quality is essential to us, and they allow us to supply the market with high-quality products with built-in 3G."

Fujii-san can't overstate the importance of broadband communication in our society, where more and more information is available in the cloud. To illustrate his point, he tells a personal story about his experiences during the earthquake that recently struck Japan.

"I have one of these modules in

"3G communication is becoming increasingly important, and with Mobile Broadband Modules' help, we've been able to build it into our ThinkPads very smoothly"



Mirjana Feldt is responsible for Mobile Broadband Modules' technical relations with Lenovo.

my ThinkPad, and that allowed me to connect to the internet even when the power was out," he relates. "So I was able to stay informed by using various websites. It became a kind of lifeline."

The collaboration with Lenovo is a typical example of how the Product Development Unit works with its customers, according to Erik Dagemark, Vice President of the unit.

"We maintain very close contact with our customers, and they come here regularly to meet us," Dagemark explains. "That stimulating, both for me

The unit's best-selling modules can that users can, for example, view seve-



makes our work incredibly **Erik** Dagemark and for my fantastic colleagues."

achieve an impressive speed of 21Mbps over an HSPA network. This means

if it is lost or stolen (see the main text).

... Microsoft, to work together on new operating systems and ecosystems.

... ST-Ericsson, for developing the modules. ST-Ericsson manufactures the reference platforms and their chipsets which are used for the modules.



JONAS SJÖQUIST. Software Designer at Ericsson, is a developer working with the Android operating system at Mobile Broadband Modules. He is proud to show off the world's first Android that works with IPv6 (the latest internet protocol) over 3G. The tablet uses a module developed in collaboration with Product Development Unit Packet Core.

worst case, we could lose the customer completely."

The unit develops software for the machines in which the modules are to be installed, but it also makes firmware, which is the software in the module itself. Software designer Henric Bergenwall, who works with

firmware, says that there are a variety of exciting functions under development. For example, the unit has developed a theft protection function



in conjunction with Intel. This function makes use of the built-in module's ability to communicate with the computer in which it is installed, and with external devices.

"If your notebook is lost or stolen, for example, you can send the module a text message that makes the computer unusable," explains Bergenwall. "And you can use Global Positioning Systems to find the computer. Once vou've found it, vou can send the module another text message to unlock the computer," he adds.

Erik Dagemark continues: "Although we have been operating for only a few years, I think that we have already come a long way towards achieving our goal of becoming a key player in the Networked Society."

I Text: Benny Ritzén Photo: Anna Rehnberg

That Ericsson Mobile Broadband Modules was established in 2007 and now

Did you

know...

supplies the world's top five PC suppliers with modules?



MOBILE BROADBAND MODULES companies throughout the world, including...

... Google, to ensure that the compatible with Google's operating systems, Android and Chrome.

modules are compatible with Intel's platforms. Intel also supplies a software development kit that includes Mobile Broadband Modules' modules. The Product Development Unit and Intel also jointly develop functions such as a theft protection function that

can temporarily "kill" a computer

unit also plans to launch an LTE module in 2012. Previously, the unit has focused on modules for laptops such as Notebooks and their smaller cousins. Netbooks. Now Mobile Broadband Modules is also setting its sights on CE, a field dominated by Android-based tablets. Machine-to-Machine (M2M) integrated modules are becoming increasingly important. In Brazil, for example, the unit has supplied buses with its modules. Mobile Broadband Modules' work

ral YouTube clips at the same time. The

involves many different processes. Hardware and software must be developed and made compatible. Many hours are spent on testing and verification, including work that involves end-user products and that is carried out to ensure that the product passes the certification performed by external, accredited testing companies on modules and end products.

Martin Dermark is sub-project leader in the hardware lab. He has worked at Mobile Broadband Modules since it was first established, and now he's leading a joint project with sT-Ericsson to develop hardware for three modules. The project follows a highly detailed plan of work, but, as Dermark explains: "You always have to be prepared to change the plans and adapt to new or changing customer requirements.

"The hardware is supplied in stages, and it's absolutely essential to meet the deadline at every stage," he says. "Our schedules are linked to customers' product launches, so if we miss a delivery, we're out of the race. In the

Per-Johan Wiberg manages a group of engineers known as field application engineers who help customers worldwide when problems arise. Here he holds up an evaluation card used by Ericsson's customers during tests of built-in mobile broadband modules.

Oman, 1976. Photo: Centre for Business History

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A CILLING



This picture shows the testing of a PCM system in Oman. PCM stands for pulse code modulation and was proposed for the first time in 1937. It was the invention of the transistor and the development of integrated circuits that brought PCM into commercial use during the 1960s. LM Ericsson introduce a first system as a trial in 1963. But it was not until years later that PCM transmission was generally accepted on the markets, and its heyday was not to come until the 1970s.

Source: The Ericsson Chronicle; 125 Years in Telecommunications. The Contact editorial team has been unable to identify the people in the photo. Do you recognize them? If so, please get in touch with us at: contact.comments@ericsson.com

The cloud: much more than a silver lining

Cloud services are considered by many to be **"the next big thing"** in computing and communications. In fact, although we don't often think about it, these services are already in **widespread** use.

nalyst firm Gartner estimates that revenues from worldwide cloud services surpassed usp 56 billion last year, and predicts that it will reach usp 150 billion in 2013. And the cloud is revolutionizing the way the world does business, communicates and keeps itself entertained.

"Cloud" has become a catch-all phrase for services in which processing power, capacity and storage are distributed over a network, rather than being in the user's own computer. But cloud in this context means far more than the term as used in the media. Many of the services that consumers use today are based on the cloud – which in many respects really just means the internet – but people don't think of them as being cloud-based. They are simply "online."

Operators are already taking advantage of the cloud. They can use it both to create new business opportunities – such as connecting clouds and selling cloud services – and to improve their own internal efficiency by using cloud technologies and services.

Ericsson is helping operators and other customers in three key ways:

- Offering cloud services to help expand operator business
- Building clouds

• Connecting clouds. In the first, cloud services, Ericsson provides

SOME LEADING CLOUD PLAYERS

AMAZON A pioneer and one of the largest, offering computing capacity over the web.

GOOGLE The search giant also offers online office tools including word processing, spreadsheets, e-mail and calendar.

AKAMAI Cloud security, app acceleration and digital-rights-management company, just signed partnership deal with Ericsson, that will combine Akamis capabilities on the internet side with Ericsson's on the mobility side.

SALESFORCE.COM Pioneer in cloud apps for enterprises, particularly customer-relations-hip management.

VMWARE One of the leaders in virtualization and cloud infrastructure.

services and applications – software as a service, or SaaS – that operators can sell on top of their mobile-broadband offerings.

By building private clouds for operators and consolidating their data centers, Ericsson >

MICROSOFT The giant from Redmond, US, is pushing to stake a claim to the cloud, which has been eating into the company's traditional software business.

SEE ALSO:

- The article on page 10 about the partnership between Ericsson and Akamai
- The Contact TV episode on the intranet on the Ericsson-Akamai partnership Global > News & Events > Internal Video > Contact TV > Archive
- The cloud services discussion on the Thinking Ahead external discussion forum on ericsson.com: http://www.ericsson. com/thinkingahead/ideas



"The possibilities are endless, but you have to remember: this is an evolution, not a revolution" Rebecka Angström Cedering

can improve operator's efficiency and reduce most capex and opex.

The third area – connecting clouds – is Ericsson's most important contribution: connecting enterprise and public clouds, using fixed and mobile access, ensuring quality of service, speed, reliability, security and supporting a variety of business models.

Superior-performance networks – big, fast, smart pipes – and connectivity are essential for successful cloud services. As the discussion on the external Ericsson discussion forum Thinking Ahead puts it, the cloud is nothing without mobility and connectivity.

Outside the telecom sector, the cloud has helped slash the cost of starting up a web-based business, which just a few years ago could cost usb 3 million or more. A start-up can now buy – or rather rent – just the computing power, applications and storage capacity it needs, adding more as required. Social platforms such as Facebook – which also live in the cloud – are also helping reduce marketing costs. The cloud can make just about anyone an entrepreneur. ConsumerLab has looked at how consumers use cloud services, specifically for digital media. Many of the services are household names around the world: Facebook, Skype, Xbox, iTunes, Twitter, CNN, Google and YouTube. Some are more geographically limited, such as the Hulu and Netflix video services in North America, and QQ in China, a mobile instant messaging application that are very popular.

The common themes among consumer cloud services are sharing, accessing and exploring. They let users share, store, find and consume media, such as images, music, videos, books and games. This can be everything from posting a photo on Facebook or Twitter to more advanced file-sharing and file-hosting sites, such as MediaFire and RapidShare, as well as everything in between.

Rebecka Ångström Cedering, one of the authors of the report, says these benefits drive user uptake: "You can share experiences and content, access endless content from wherever you have an internet connection, and explore new content through taking a deep dive into the internet (reading blogs, recommendations, browsing sources like Spotify, YouTube and so on)."

Ericsson ConsumerLab's study found that sharing was the single largest factor attracting users to cloud services. And different services offered different levels of sharing. As one user put it:"... there are always lots of family events, and it's nice to capture these things. I put them on Facebook if it's only for a close group of us... But if it's for a wide group of friends and whoever else – if it is really funny or no friends are involved – I can just put it on YouTube."

In general, people are willing to try out new services as long as the barriers are low and they get a positive experience. They grow into these new services, taking small steps, letting their behavior gradually evolve. Evolution is a key term when it comes to cloud services, says Cedering.

"The possibilities are endless, but you have to remember: this is an evolution, not a revolution."

Illustration: Ebba Berggren

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Point to Point Communication

Instructions: Read the subject category and question. Start with the five-point question and continue to the right until you have an answer. When you have gone through all six categories and guessed a year for the picture below, calculate your total score and compare it with the maximum tally, which is 35.

Subject/Points	5 points	4 points	3 points	2 points	1 point
Technology Which technology?	A Hungarian scien- tist Kálmán Tihanyi first described this technology in 1936.	This technology shares its name with an component found in blood.	It involves millions of small, gas-filled chambers between two glass panels.	A phenomenon called 'burn-in' plagued early models.	This technology has contributed to the recent rise in popularity of HDTV.
Geography Which country?	This country gained independence from the UK in 1957.	It is comprised of 13 states and three federal territories.	The tallest twin buildings in the world, The Petronas Towers, are located here.	Ericsson establishes the APAC Innovation Center in this country in 2010.	The capital city is Kuala Lumpur.
Communication Which person?	He has written two books about blogging.	He helped create and launch the social media sites Xanga and Blogger.	He and co-founder Jack Dorsey wrote the prototype for Twitter in two weeks.	He currently serves as Twitter's Creative Director.	His nickname stems from his childhood pronunciation of his full name.
Culture Which character?	In 1963 the first film featuring this character is released.	In 2008, Sony Ericsson releases a Cgoz Cyber-shot phone used by this character.	This character's Aston Martin DB5 was featured in five of his films.	He prefers his martinis shaken, not stirred.	This fictional British agent has a license to kill and a repu- tation for seducing women.
Sport Which sport?	This sport was influ- enced by a children's game called "Duck on a Rock."	The first official game was played at a YMCA in 1892.	The European Men's Championships were held at Ericsson Globe in Stockholm, 2003.	'Birdman', 'Shaq' and 'Magic Johnson' have helped popula- rize this sport.	Two teams of five players score points by throwing a ball through a basket.
History Which year?	Ericsson produces 37,000 mobile phones during this year at Kumla.	CDs outsell vinyl records for the first time.	The Summer Olympics are held in Seoul, South Korea.	George Bush Sr. is elected U.S. President.	The Netherlands won the UEFA European Football Championship.

The picture

Which year was this photo taken? 5 points for the right year 4 points for the year +/- 1 year

- 3 points for the year +/- 2 years 2 points for the year +/- 3 years
- 1 point for the year +/- 5 years

TURN THE PAGE FOR THE RIGHT ANSWER.

Technology: Plasma display panel (PDP). Geography: Malaysia: Communication: Biz Stone. Culture: James Bond. Sport: Basketball History: 1988. Which year (photo): 1971: An employee at G division in Sweden reads Contact.

