

# Standard simplifies

With mobile networks on the verge of an anticipated explosion of new services, the infrastructure for the service networks must be standardized. Ericsson is addressing this issue by offering customers solutions based on an architecture called Service Network Framework (SNF).

**Standardization work for 2G and 3G networks** was successful in creating viable standards for the access or radio network, as well as the core network for switching and data transport. When it comes to the service portion of the network, however, the situation is more like chaos. In principle, every service and application has its way of handling user data, payments, and so on.

"This won't do when the market is facing a change and the new networks will need to be able to handle perhaps thousands of new services," says Håkan Arvidsson, business development manager at Core Unit Service Network and Applications. He adds that this is why his unit has been working for the past few years on developing an architecture that will make things easier for all parties.

Operators should be able to add and remove services simply. End users should also be able to start using new services and not have to bother with unnecessary logins or other obstacles. In addition, the architecture should help developers of new applications and content providers.

"Everyone stands to gain, but it is by no means easy to change the thinking of operators, who do not see any short-term profit," continues Håkan Arvidsson. "Longer term, however, changes are both necessary and clearly profitable. A seamless service network is also a way for operators to profile themselves now that most parts of the access and core networks are standardized."

#### Re-using existing equipment

One advantage of Ericsson SNF is that the architecture is based on open standards, meaning that customer-specific service networks can be created to match each operator's requirements. The goal is to re-use equipment that the operator already has in the service network as far as possible.

"Our primary concern was integration and creating a total solution," reveals Håkan Arvidsson. "We have our own products, but Ericsson is not always best in every aspect of functionality. Instead, we have focused on interfaces and protocol."

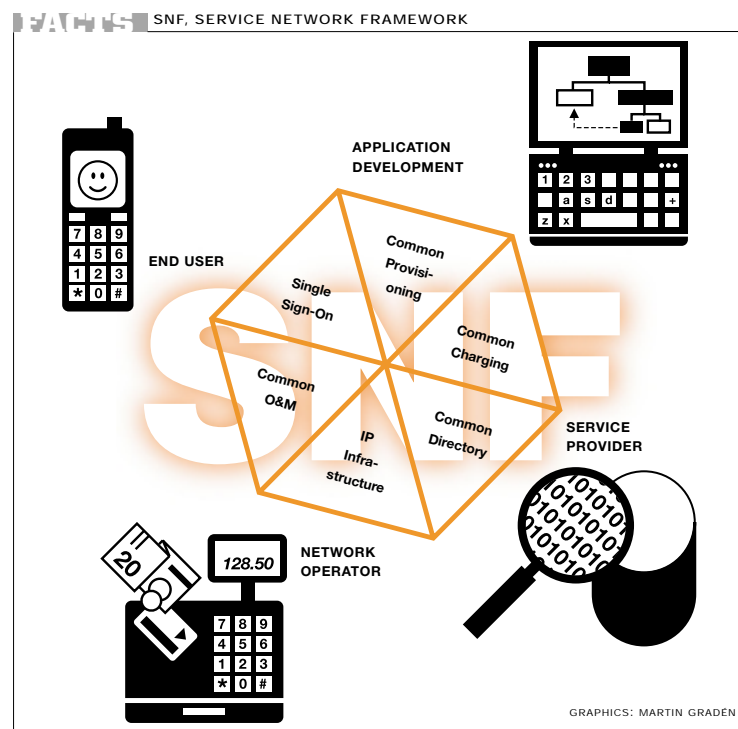
"We take the customer's business requirements as the starting point and then study actual operations. What does the operator need to connect to existing systems? What needs to be replaced?"

The result is an open and modular solution that is scalable and reliable and in which systems integration is increasingly important.

Ericsson is involved in several projects in which customers are being offered solutions based on SNF. One of the most important is Vodafone. Ericsson's SNF as described here satisfies Vodafone's overall objectives of improving the customer's perception of services,



Håkan Arvidsson



GRAPHICS: MARTIN GRADEN

facilitating the development of new services and making it simpler for operators to introduce new services.

#### SNF components

SNF defines an architecture, common functions, rules for designing products and service networks and a method for gluing together and integrating the various components in the service network. Ericsson also offers a number of sales objects to facilitate the process.

These include a model for handling user data called Common Data Model.

In addition, there is a function that allows all services to be accessed with a single login, rather than having to log in for each service. This is called Single Sign-On & Session Management. Ericsson is working in the Liberty Alliance to create an industry standard. The core component in Ericsson's solution is the AAA (Authentication, Authorization and Accounting) server based on Ericsson's TSP 4.0 server platform.

Provisioning is also important. This means that information about a user or service is spread to essential parts of the network, servers, switches, etcetera, when a new user or a new service is registered in the service network.

The Common Charging function is another critical component. It must be possible to receive payment in real time and to share revenues with partners, such as the content provider for a service.

"I would also like to point out that Ericsson has decided that all new products that we develop for the service network will be compatible with SNF and that existing products will be migrated to SNF," says Håkan Arvidsson, adding that all new products will also be based on TSP 4.0, and later releases.

LARS CEDEQUIST  
lars.cederquist@ime.ericsson.se

# several services



Anders Hörndahl from Ericsson, Marco Iannacone from Vodafone and Harald Nabseth from Ericsson, pictured discussing the Vodafone Live portal.

PHOTO: ECKE KULLER

## Attractive for Vodafone Global

"The platform between the backbone network and the applications is of interest to us in relation to achieving three main objectives: simplifying development, simplifying deployment and enhancing end-user experience," says Marco Iannacone from Vodafone Global.

"The Vodafone Live portal and the services it offers is the first implementation of some of these capabilities. The demonstrations I have seen here at Ericsson have given me broader knowledge of Ericsson's Service Network Framework (SNF)."

About a year ago, Vodafone Global in Germany launched an internal project called SDP: Service Delivery Platform, Vodafone's name for its service network.

"We presented solutions based on our SNF for Vodafone and conducted discussions with the company from virtually the time that their project started," says Anders Hörndahl, manager for Global solutions and head of Ericsson's part of the project.

On a daily basis, he works at Ericsson in Düsseldorf in the group that implements global projects for Vodafone within Ericsson's Global Customer Unit (GCU). Ericsson's GCU organization is a reflection of the customer's organization, which handles its global projects from Düsseldorf. Marco Iannacone, who is responsible for the SDP Engineering team at Vodafone, recently visited Ericsson in Stockholm.

"In addition to the presentation of the products that

Ericsson offer for our SDP I also received comprehensive information and a demonstration of Ericsson's Telecom Server Platform (TSP). The live demonstration in the lab was especially instructive. I saw the hardware and conducted some tests myself. We will now evaluate the information I received," he says.

According to Marco Iannacone, there are several reasons why SDP is interesting. "There are 29 operators within Vodafone and many of these have their own solutions, which necessitates coordination. This becomes particularly apparent as the Vodafone Live portal is introduced in more markets and the number of users increases. Another reason is that SDP facilitates cooperation with third-party companies that intend to develop applications," he explains.

In October last year, Ericsson received an order for a

service network from the Romanian operator, Mobifon, which is 21-percent owned by Vodafone. Currently Mobifon is not participating in the Vodafone Global SDP effort but it might join the programme in future.

"Following this initial order, we have received some more orders and others are pending. Work on installation of the Ericsson solution will be conducted in phases from December until the end of June 2003. We encountered major competition from large global companies, such as IBM, Nortel, Siemens and Microsoft, as well as from small, niche competitors, with excellent references from other markets," says Ovidiu Iosif, key account manager for Mobifon at Ericsson in Romania.

"The orders provide us with a strong position regarding the service network, but also for 3G. One of the four main order components for the solution is Ericsson's AAA server," he says and explains:

"AAA stands for Authentication, Authorization and Accounting and means that the server identifies the subscriber, handles authorization for various services and ensures the correct payment for the service. The server is also an important component for the future 3G HLR, called the Home Subscriber Service (HSS)."

"In addition to Vodafone, several other operators are interested in our service network solutions based on SNF. These include operators in the US, Italy and the Far East," says Anders Hörndahl.

GUNILLA TAMM  
gunilla.tamm@ime.ericsson.se