

The brutal truth: Do you really deliver what your customers expect?

Just because the network says it's working doesn't mean your customers experience a service the way they expect to. Operators must get a grip on user value, measuring it and assuring that quality is delivered all the way. This requires a stepped, pragmatic approach – a framework of activities.

IF THE BLOGS, the press, and the chat groups are united in praise over a brand-new service, and this time adding, "It works and even faster, smoother, clearer, better than anything we expected!" will consumers not be more inclined to buy it earlier, pay more, and maybe even change operators to get it? And will they not come around and invest in a new terminal?

Well, provided the service fills a real need – and fits the customer's purse – the service now has business potential and meets expectations. But so far operators have focused mainly on the network, measuring performance within the network entities, while neglecting performance of the service itself. This is why, too often, new services fail. Just because the network says it's working doesn't mean the users think so. An important differentiator is missed!

The USB dongles were good news and picked up immediately, as mobile broadband had sufficient performance – and it only gets better! But we also remember the early days, when some services were set for success, and yet ... users didn't quite agree until accuracy and availability were improved. Even voice must still be continuously monitored, because quality is often degraded by new user equipment.

With new features in new terminals

and networks, users expect higher service performance – which operators must deliver. Operators must also secure quality in order to benchmark the service against other vendors, other technologies, and to build good quality differentiation.

Shift in customer values

There has been a shift in how consumers define value – from products to experiences. User expectations evolve on non-network developments, and the telecom market has gone from being driven by issues concerning technology to becoming more and more driven by consumer expectations.

So it makes sense to shift focus from operator targets for user service performance, to user-experience-based targets. And to do it quickly. But how?

The telecom networks, with many hundreds of user services, produce a huge volume of performance indicators (PI). Still, the market is struggling over which PIs to choose for expensive service measurement and follow-up, and has yet to establish standards or guidelines for the best PI selection. Is it even possible to know which PIs best represent how a user experiences a specific service?

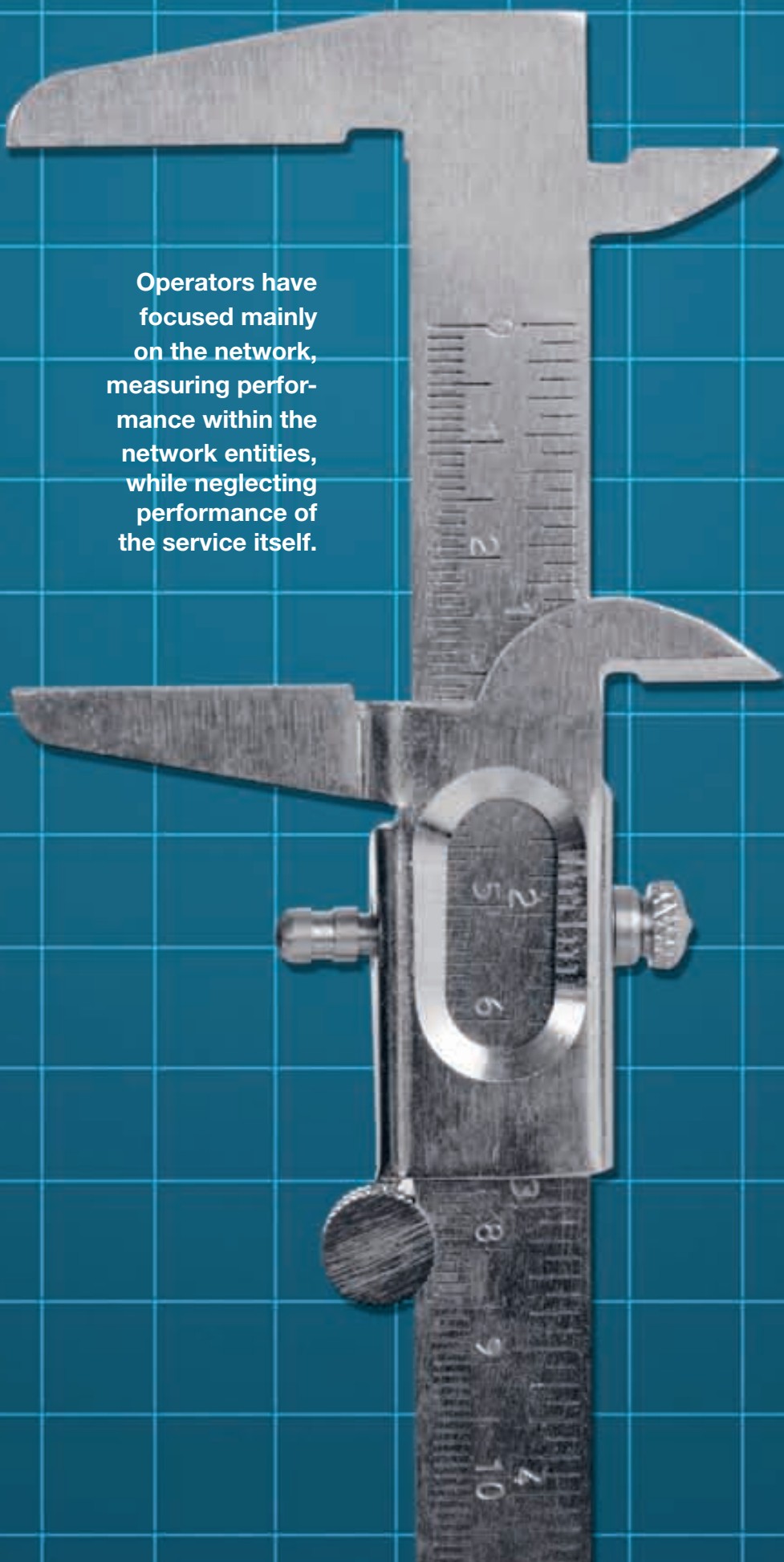
After looking at possible solutions, we created the User Service Performance

(USP) framework. By carefully selecting a handful of user experience-specific PIs, this framework enables operators to cost-effectively predict and monitor essential performance values, and gives telecom players common ground for discussing user performance. The USP framework includes a brand-new system-service assurance level (Quality of System Service, or QoSS), which paves the way for estimating performance closer to actual user service.

Separating user services from system services allows you to set performance requirements and specify how user quality is best measured and monitored. Because system services in principle are user-independent, they are under the control of the network/systems vendor. When we talk about system-service solutions, we include the user equipment. Examples of system services are push-to-talk, mobile TV, IPTV, and multimedia telephony, whereas user services are those like CNN with content and FriendFinder, and are based on one or more system services.

Choosing the right indicators

The basic quality functions in the service path create the basic performance quality. For many services these functions are located in terminals and content-cre-

A vertical vernier caliper is shown against a blue grid background. The tool is oriented vertically, with its main beam and jaws extending from the top to the bottom. The main beam has a scale with markings from 0 to 10. The sliding frame has a scale with markings from 0 to 10. The jaws are positioned at approximately 5.5 units. The tool is made of metal and has a polished finish.

Operators have focused mainly on the network, measuring performance within the network entities, while neglecting performance of the service itself.

❖ ...The brutal truth: Do you really deliver what your customers expect?

ation products. The European Telecommunications Standards Institute (ETSI) has drafted a standard that defines performance indicators, which report performance in terms of

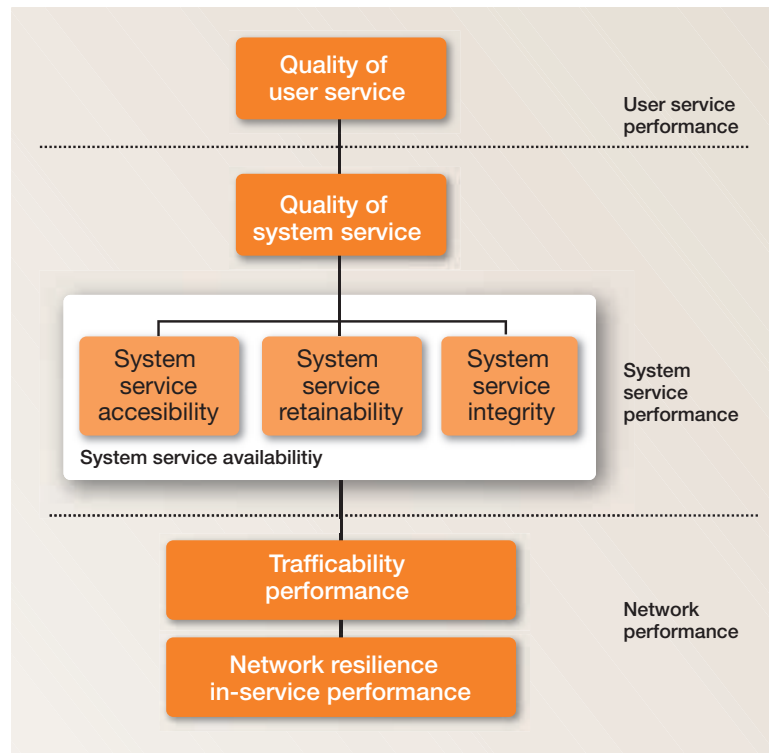
- accessibility (probability with which users can start a service);
- retainability (the service stays up once it is running); and
- integrity (the quality of voice, video and pictures).

But you need only a few – the most vital – PIs to reflect the performance that users expect. We call our key performance indicators System Service KPIs (S-KPI), and the criteria for our selection are strong user focus combined with access and system independence. In associated documentation we also provide formulas as well as user and system (end-to-end) trigger points. As important, the documentation recommends suitable tools for measuring the performance of relevant infrastructure.

Verifying system-service performance means verifying the S-KPIs. This gives a solid QoSS level within a defined test environment, user equipment, and with relevant traffic load.

Today's S-KPI data needs to be collected from several sources by different tools. Data comes from terminals and clients; session records showing performance for every session and all users; and available infrastructure data, which shows how nodes support system services and facilitates operator efforts to find and rectify faults. This combination allows measuring and reporting the end-to-end service quality. However, limiting the data sources and tools needed for the S-KPIs makes the USP framework more accurate and cost-effective. Most of the required data should be provided directly by the infrastructure.

To complete the framework, you must include the different tool sets your organization needs for the control services of user quality. Customer support, for example, requires real-time information on the availability of every system service. Ideally, even users can be provided with this information. Likewise, service



operation centers must know the actual values of the S-KPIs. They can also use the historical view to monitor service capacity and to adjust alarm threshold values. Network operations centers, in turn, must see the status of the infrastructure that supports the system service. Chief marketing officers require easy access to information on service usage and trends.

Obviously, target values must continuously be reevaluated – for example, in conjunction with critical updates or upgrades of infrastructure, terminals, and clients.

Improving business

How does the USP framework improve business for operators and suppliers?

Knowing the QoSS simplifies launch and risk evaluation. The system service works well, and testing of the corresponding user services or interfaces becomes easier and therefore cheaper. The control services become manageable in a new way because of fewer indicators. These allow a sharper focus for

marketing and pricing efforts.

By knowing that service performance meets user expectations before launch, your matchmaking of segments and prices, and formulating the best proposition, will be a lot easier. The gained accuracy will cut risks and costs in proposition making. Even helpdesks are better prepared, which reduces costs. Using QoSS drops sales and marketing expenses in time to launch and in time to make competitive branding. Today, services are available everywhere to everyone, the churn levels are very high, and all tools to reduce these risks are well-spent investments.

Other expenses are also reduced, such as costs of ownership and of service management and handling. The better your user services from the start, the fewer unforeseen deployment costs and updates you will experience, as well as less need for additional measurements and testing. Some 5–10 percent of operating expenses (OPEX) are spent on the service level, and this is perhaps the one OPEX part that is yet growing, and why

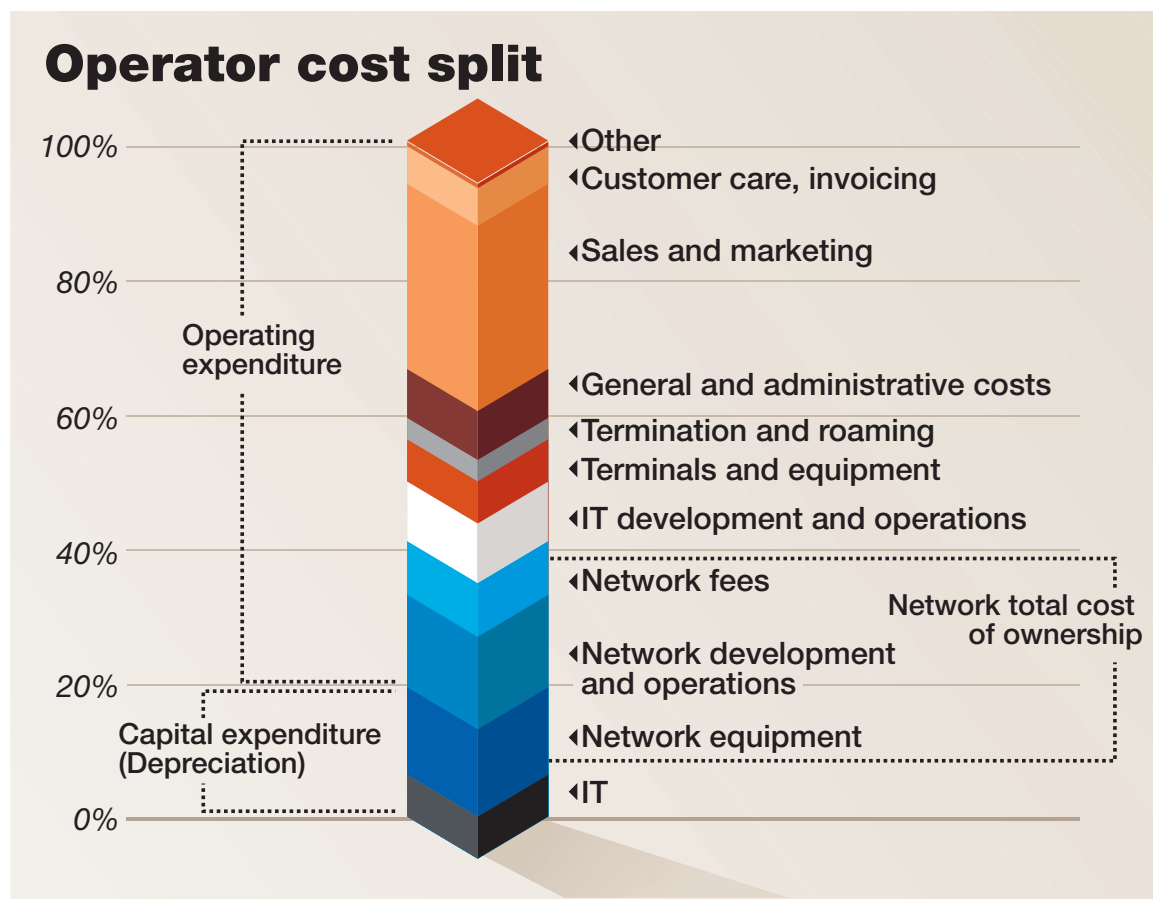
the USP framework countermeasures are welcome.

The S-KPIs can be a major advantage when negotiating service performance through service-level agreements (SLA) with third-party content and service providers. SLAs secure service revenues, making them more predictable; this,

along with continuous supervision, allows good potential for earlier market size development.

Proactive suppliers are also good for business. Your earlier knowledge means better planning and allows for accurate investment and success. Being proactive, of course, means knowing how your ser-

vice performs as new generations of accesses – fixed and mobile, over domains, protocols, layers, and architecture – develop. Using the tools that enable service quality at all levels will make you a key player in this dynamic market. □



the authors



Gerd Holm-Öste (gerd.holm-oste@ericsson.com) graduated in 1985 in mechanical engineering at the Royal Institute of Technology in Stockholm and has a diploma in marketing from IHM Business School in Stockholm. She joined Ericsson in 1986, spending nine years with system testing and project management. In 1995 she became mobile systems product manager working with different areas such as charging and platform strategies and network architecture evolution. Since 2004 her main area is has been User Service Performance creating the USP framework.



Christina Birkehammar (christina.birkehammar@ericsson.com) is senior strategic product manager and User Service Performance team leader at Ericsson's Product and Portfolio Management, Network Solutions. She joined Ericsson in 1985 and has been involved with mobile telephony since 1986, mostly in product management. She has also worked in business development and in Market Unit Western Europe. Christina holds an MSc in civil engineering from the Royal Institute of Technology in Stockholm, and a diploma in marketing from the IHM Business School in Stockholm.