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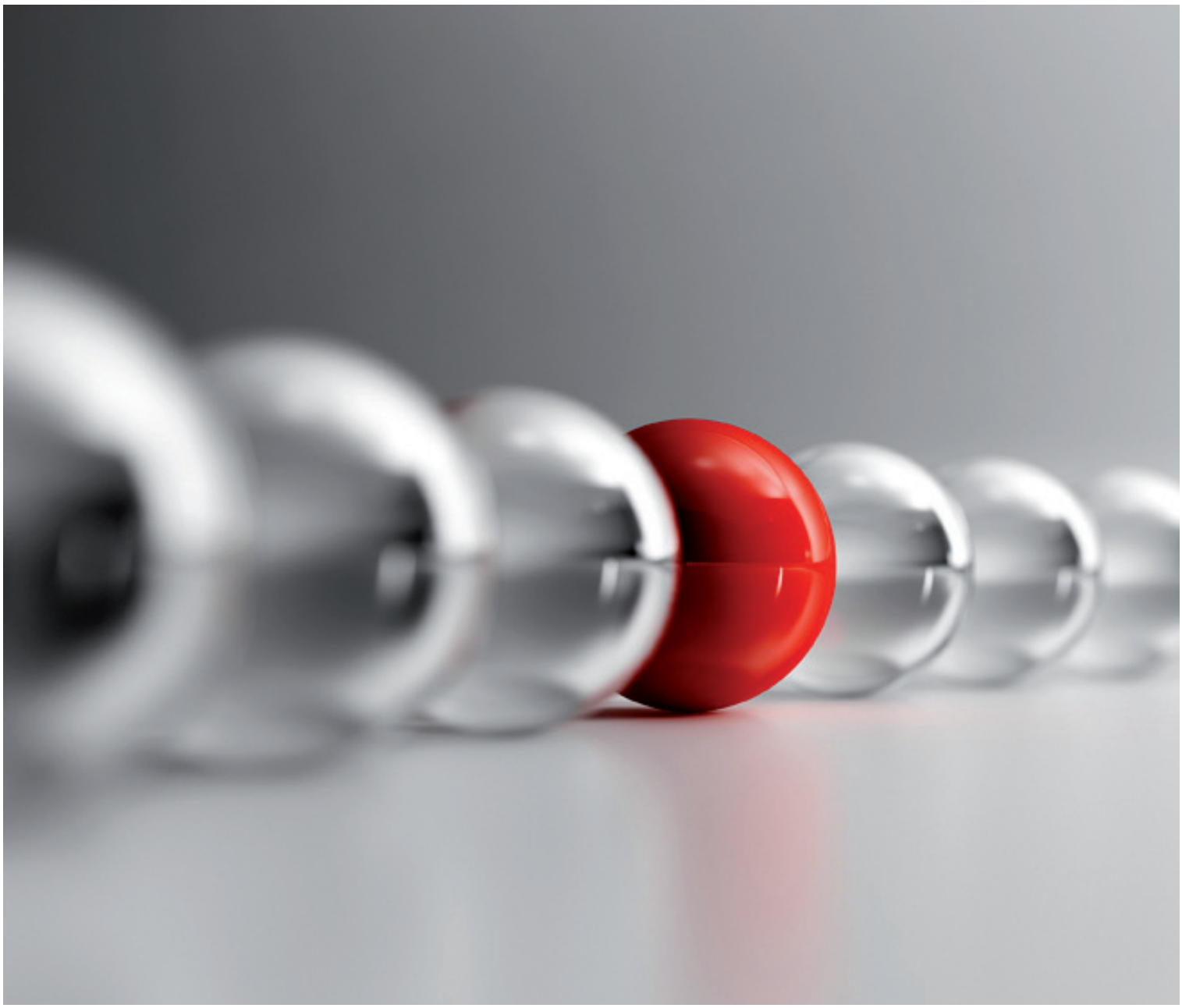

Leadership Article No. 1

Bridging the gap between IN and IT

Real-time Billing – Online Charging: Bridging the gap between existing IN, IT and future ALL-IP/IMS networks

By Mathias Liebe, Head of Product Marketing, Orga Systems, June 2007

The billing industry has come a long way. During its history, it has been confronted with myriad challenges and predictions that the launches of new services would be hampered by missing capabilities. Can billing in its traditional form now cope with the expected transition from IN-based applications and services to future IP-dominated environments? How will operators leverage existing infrastructures, and at what speed will they adopt new technologies?

To make a long story short:

It will happen, but not overnight ... and even the most innovative operators striving for triple play will try to leverage previous investments for as long as possible. Nevertheless, one thing is sure: It will have a fundamental impact on the billing landscape. Today's billing deployments literally must enable operators to converge from today's circuit-switched and IN-based services to "combi-national" and ALL-IP based approaches. Regardless of what this transition and its effect on billing is called (so far we have heard of the revolution, the evolution and even of the devolution of billing), future-proof billing solutions must have new qualities. Otherwise convergent approaches to rating and charging will not be able to cope with the scalability needed to charge for existing SS7-based services as well as the flexibility to handle SIP-initiated sessions. Only this will allow operators to tap new revenue streams and to maintain and defend existing IN "cash cows" at the same time. And this is why convergent online charging is gaining more attention and momentum than many other billing-related focus areas.

Convergent online charging taking center stage:

Telecom vendors with different vertical backgrounds are "repositioning" their portfolios and are trying to follow this transition. With respect to (IP) mediation, service control, rating and charging, a highly versatile and convergent online charging layer is currently gaining the highest levels of popularity. The question is, who will be best positioned to deliver it? The traditional end-to-end billing and IN approaches may fall victim to new deployment scenarios which will favor a single (convergent) point of rating and charging for all services and all payment methods. If deployed with extensive real-time capabilities and as a truly convergent platform, this "online charging system" (OCS as specified by 3GPP) may absorb and cover a lot of functions along the traditional IN (prepaid) and IT (postpaid) billing chain. This may reduce the functional scope of old-fashioned BCC systems to tasks like bill printing and customer care, which may also be handled within extended CRM systems.

How quickly will IN-based services and charging mechanisms disappear?

Currently there is a lively discussion going on about the traditional IN platforms reaching the end of their allotted lifetime and whether another investment in upgrading or even replacement by so-called Next Generation INs (NGINs, often utilizing JAIN – Java for Advanced IN) is worthwhile. In the beginning of the "all-IP" discussions many experts predicted fairly quick obsolescence for IN-based services. Is that really going to happen? No one doubts that IP technology is eventually going to dominate the future, but at the moment these "old fashioned" IN services still contribute a lot of revenue as well as profits. And in addition to that, new and truly (cost-) effective ALL-IP solutions for prepaid services (national and in roaming), mobile VPN and PBX-like solutions, voting, premium and toll free numbers etc. still must prove that they can also provide the same levels of performance and stability as the existing IN platforms.

So if the traditional IN-based services will eventually be replaced but nevertheless "hang around" for some time, what does that mean for the successful (re-) design of AAA-processes and future-proof billing deployments? In light of the fact that IN and IT departments have traditionally used at least two different systems for charging and billing, how can operators converge and consolidate operational processes? Here convergent Online Charging Systems seem to offer a golden path to accompany operators during their transition towards "ALL-IP," or should we better say "MORE-IP" environments.

Online Charging must provide new qualities:

Neither the traditional, proprietary IN platforms (which also host prepaid rating functions) nor IT-based systems for batch-based postpaid billing offer sufficient flexibility or the needed real-time performance. So what must a potentially convergent online charging layer provide to outperform the traditional approaches?

Sitting right between the existing network/signalling nodes and the IT environment, the OCS must enable seamless connectivity and ease of integration in both directions. In this respect the latest reference architectures (see 3GPP specifications for online charging) as well as concrete charging protocols such as DIAMETER and well specified APIs (e.g. OSA/Parlay) are quickly gaining the status of "new" de-facto standards. Furthermore flexible pricing and real-time charging mechanisms for event- and session-based services have to bridge IN (circuit switched) and IP connectivity. In order to truly accompany operators during their transition, new online charging layers must also cope with IN-based services, new hybrid services (combining circuit- and packet-switched sessions) as well as future ALL-IP / IMS offerings. Vendors who are merely repositioning their products will definitely fail to deliver these functionalities. Orga Systems, one of the pioneers and inventors of real-time billing, has been providing highly flexible, high performance real-time systems to telecommunications companies since 1994. Contact us to learn more about our approach to convergent online charging and flexible real-time billing deployments.

Mr. Mathias Liebe has been working in the mobile telecommunications business for eight years. He holds a German University degree in "European Marketing" and a BA in „International Business" of the Buckinghamshire University College, United Kingdom. Mr Liebe joined ORGA Systems - an ISV for Convergent Real-time Billing Products - in the year 2000. He currently holds the position "Head of Product Marketing" of Orga Systems. Mathias has a strong background and vast experience in convergent real-time billing, IMS, online charging, the prepaid market segment as well as mobile customer loyalty solutions.

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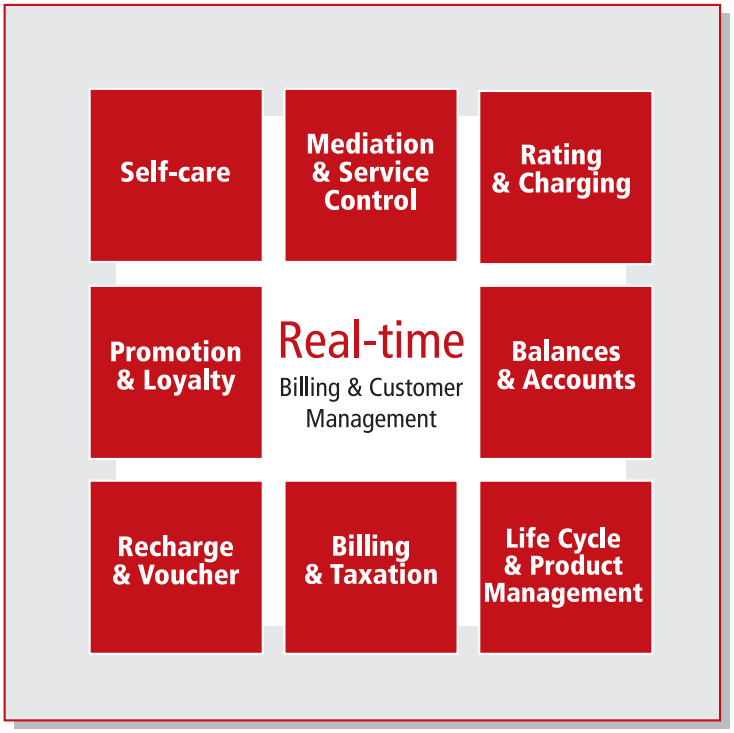
MISSION Real-time

Orga Systems delivers an integrated suite of real-time billing products for flexible rating and charging, convergent payment methods, revenue control and the facilitation of an improved customer experience.



Orga Systems, one of the pioneers and inventors of real-time billing, has been providing end-to-end Billing and Customer Care (BCC) systems to telecommunications companies since 1994.
Our motto for real-time billing solutions says it all:

Bill Anything – Anytime – Anywhere.

Orga Systems provides a suite of real-time products that is ready to meet the challenges of next generation networks and enhance operators' ability to improve the customer experience. In addition, Orga Systems' real-time solution portfolio also covers ARPU/AMPU-boosting customer applications and products for online mediation as well as service and revenue control.

These include applications in the areas of real-time customer interaction and notification, session control, customer self-care and loyalty as well as innovative top-up methods.

Selected References

avea, Turkey | Bouygues Telecom, France | Entel PCS, Chile | Geocell, Georgia
Kcell, Kazakhstan | mobilkom austria | Moldcell, Moldova | Sunrise, Switzerland
Telecom Personal, Argentina | TIM Brazil | TIM Italy | Vip mobile, Serbia