

*Reflections from 2005 International SIP Conference in Paris*

*By Adrian Georgescu*

*It was for me an interesting and utterly refreshing experience to sit face to face with the inventors of SIP and to learn of its extensions to many applications beyond Voice over IP such as presence, mobility and emergency services. On the panel were present also mobile and fixed line service providers as well as technology vendors.*

*For three days, the topics of the event revolved around privacy and presence extensions for SIP protocol, questions about how money can be made in a server-less environment like peer-to-peer technology that has tremendously reduced the cost of Voice over IP, spam on voice over IP, security and the requirements of business users. Representatives of both wire-line and wireless operators approached the merger between their services and real-life deployment examples were exposed.*

*It was important to notice the shift in terminology used. 'Telephone number' shifts more and more towards 'Presence status' and this signifies a major change in mentality together with the corresponding technology. Presence can give new social dimensions to communications. Concepts discussed by Henning Schulzrinne like when and how somebody is available for communication, context sensitive routing decisions make room for next gen services and possible new type of application providers.*

*VoIP term has been refined to the bare truth as expressed by Henry Sinnreich. "If you can dial a SIP URI and you can be called by a SIP URI than you have access to Voice over IP, otherwise is just an emulation of classic PSTN."*

*Jonathan Rosenberg, who showed that one of the key ingredients to combat spam is the secure assertion of identity, discussed the sensitive topic of Spam in Voice over IP in detail.*

*Regarding peer-to-peer models like Skype, the addressing space was one of the questions raised and this can turn to be the Swiss army knife that can force subscribers to stay on an isolated island. Also, routing traffic via unmanaged self-promoted signaling and media relay nodes is not an ideal proposition for the majority of business users. By contrast, for residential customers where price is the most important criteria the low cost of peer-to-peer may be a decisive advantage.*

*It has been also widely recognized that earning money by charging minutes per destination is a short-term proposition and is not a sustainable business model that justifies building a dedicated network infrastructure composed of soft-switches and session border controllers. Instead, service providers should concentrate on the final picture, indeed yet to be defined, but where end-to-end communications facilitate any applications deployed by end-users. In the debacle about the usefulness of session border controllers, heavily defended by their vendors and some of their customers but heavily criticized by others, a major argument stood up, no extra component in a chain can make it more solid so fixing faults in existing SIP proxy implementations cannot be solved by adding yet another extra component in the network.*

*It was a surprising view to see the bell-heads against the net-heads in a "fight" that in the end both seem to lose but the outcome cannot yet be foreseen. The talk is not anymore about whether telecom and Internet converge into one entity but whether there is any network service at all except Internet access. In the hotel that hosted the event, Sofitel, having to pay 10 Euros for two hours of wireless Internet access seems to have confirmed that whomever has an access network seems to have something to sell the rest are just left aside if not coming up with new services. The Internet bill is nowadays higher than the voice bill.*

*Challenges regarding emergency services for Voice over IP bring actually to the surface solutions for an already aging PSTN infrastructure that did not achieve fully its initial goals anyway. Henning Schulzrinne presented an all IP approach for emergency services and the migration steps to get there. By using SIP and solving the riddle of geographical location of the party making the emergency calls, other possibilities become possible which increase the chance of successful emergency operations.*

*The lessons learned from the trials on IMS concepts (like Orange) are a positive signal for vendor to implement their architecture based on open standards. Any proprietary extensions artificially added by some vendors should be avoided.*

*In this period when theory is confronted with real implementations it is more important than ever to apply in real-time the lessons we learn from events like this SIP conference in Paris.*

*Are session border controllers or load balancers the solutions for today's SIP scalability and security? Not if your business objective is end-to-end connectivity and the leverage of new services. Any equipment in between end-to-end communication will block any newly deployed services because the intermediary does not understand the new application such as may be presence, IM, games or interactive contact centers as was presented by Anwar Siddiqui from Avaya. SBCs will remain known as the gatekeepers of the now dying PSTN minute terminating business.*

*A number of presentations addressed the issue of QoS for VoIP in cable provider networks. Some SBC based solutions were dependent on the cable operator understanding and controlling the customer application and only VoIP was considered. By contrast, Cisco presented a QoS architecture that works equally well for any type of application that may run in the customer home network. Henry Sinnreich reminded the audience however of the simple truth that "QoS does not create bandwidth".*

*The role of ENUM in connecting VoIP islands of different providers and enterprise networks, was a good example of how open standards can bridge existing gaps between providers by replacing arbitrary peering agreements that do not scale well with the large adoption of SIP and ENUM. Does it make sense to build today closed VoIP islands against the general principle of end-to-end communication principle of the Internet? Obviously not, by the time some provider's finish up building their walled garden, the customers will be safely outside of them.*