Optimization of HPSA+ Capacity of Mobile Networks

James K. Tamgno*, Imane S.O-T.A. Alidou*, Claude Lishou**

*RSI Research Group, ESMT, Dakar Senegal
**LTI Laboratory, UCAD, Dakar Senegal

james.tamgno@esmt.sn, imaan.ald@gmail.com, clishou@ucad.sn

Abstract—*This paper summarizes the sum total of research carried out to find an alternative against the difficulties and complex conditions that undergoes mobile operators in the acquisition of 4G license in order to satisfy the increasing needs of customers to use an appropriate mobile broadband in Senegal. With the explosion of the smartphones, the increasing capacity of the needs for the consumers to the use of the social networks, mobile services and applications, the keen demand of remote loading of data in real time, the need the performances of the network is essential, it with an aim of offering a broader access to services more sophisticated and more accessible like the access high flow to Internet. In spite of the difficulty in obtaining the 4G license with authorities, the operators more precisely Sonatel (Orange Senegal) which already offers on the 3G services based on access Internet has high flow, always seeks a means of satisfying their customer better and better.*

Keyword—*3G; Performance; QoS; Optimization; PKIs, HSPA; HSPA+.*

Dr. James K. Tamgno, As a senior lecturer at ESMT, This author b•eczme Member (M) of IEEE in 2012, he obtained my Ph.D in may 2013 at University Cheikh Anta Diop of Dakar. My researches focused an Promotion of African's languages and dialects and Contribution to a Wider Accessibility of ICT, by Circumventing Language Barriers and Lcsscning the Impact of Illiteracy or Disability. Previously I have gotten a M.Sc. in Engineering Science from Cheikh Anta DIOP University of Dakar. studied numerical anâlysis and mathematics at Yaoundé I University of Yaoundé, and worked as a research scientist at Ecole Super:curc Mutinatianale des TCIécommunications (ESMT) of Dakar

Pr. Claude LISHOU is Professor of Universities at the Ecole Supérieure Poly-technique of Cheikh Anta Diop University in Dakar (Senegal). He teaches several disciplines ranging from industrial computing to new generation networks in the electrical engineering and computer engineering sections. Director of the Virtual Platform of the WCAD, coordinates the information system and oversees the strategy of open and distance training at his university He leads an internationally renowned research and development laboratory dedicated to the use of LCT in education and training, environment, energy, transport, e.governance,, On the scientific level, he is the author and co-author several publications in scientific journals with international circulation. Professor LISHOU is a member of several scientific societies, member of editorial committees of scientific journals, member of the Networks of Information and Communication Technologies for teaching and research, Editor in chief of the Journal of Sciences for Engineers . For marc than two decades, he has supervised end supported dozens of engineers and researchers in these areas, especially in western Africa. A recognized expert in the development of ICT applications and services, he divides his time between teaching, research and consulting with international organizations COIF, AUF, UNDP, UNESCO, UNCTAD...).

Imane s.o-T.A. ALIDOU became a Member (M) af IEEE in 2015. While her growing up. graduated as a telecommunications engineer at ESMT Dakar ▬Senegal. In 2011 she got a specialized master in business management at Telecom Bretagne Rennes • France Her most important intership experiences are the onc for the engineering school graduating at Orange Dakar Senegal and the other for the specialized master at Altcn SèVTCS France. She actually works as a network engineer for AFD tech in Peris, France. The company is involved in design prooects, evolution 0f information systems and networks of large companies- As a network support engineer she is responsible of the management at the network at large companies.