

# Preface

The Internet has invaded most aspects of life and society, changing our lifestyle, work, communication and social interaction and giving us expectations about new forms of interactions, access to global knowledge and decrease of the digital divide. Nevertheless, the current Internet suffers with lack of mobility, loss of transparency, scalability problems, incompatibility among protocols, protocols taking roles for which they weren't originally designed, security vulnerability and attacks. Nowadays it is taking place a big momentum on Future Internet research. It is time to rethink the Internet architecture and reengineering it to address the current and future requirements. There is a common consensus that the Internet needs improvement. Nevertheless, there is not yet a shared vision on how this may happen. There is not a complete network science to accurately predict and control network behaviors with global interactions.

It is the aim of this book to group and to describe in a concise way diverse new Internet architecture proposals and ongoing research projects to readers have an overview and better understanding what is happening now in future Internet research area. A survey about the evolution of the Internet architecture, its principles and a brief history of the Internet are also presented to illustrate why Internet architecture needs to change.

The idea for this book came with an invitation from Springer during the time of the CPqD Workshop on New Architectures for Future Internet, occurred in 23-24 September, 2009, in the context of the ARCMIP (ARchitectures for Mobile IP), future Internet project sponsored by FUNTTEL (Funding for Technological Development of the Telecommunications) - Ministry of Communications, Brazil. The workshop took place at CPqD Foundation, the largest ICT R&D Center in Brazil, at Campinas, São Paulo, where ARCMIP project is being developed. It consisted of a number of selected presentations from key national and international researchers that sharing their experiences with us and some of them accepted in contribute to create a book about the workshop's theme including their presentations.

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