

FUTURE INTERNET MODEL AND SERVICES: PERSPECTIVE, CHALLENGES AND FUTURE TRENDS

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Current Internet has ossification, inflexibility, security, quality of service, and quality of management as well as many other issues. For tackling the problems of the current rigid layered network architecture, several initiatives are ongoing towards the development of the future internet architecture. There are many implicit dependencies (i.e. tight coupling) between existing mechanisms. However, the problem is not limited to specific protocols or mechanisms but it is an architectural issue. Therefore, we are proposing to rethink about the networks of the future from the scratch as a clean-slate approach. The rest of them have been going towards evolutionary approaches such as 5G, CCN, SDN, etc. where they are providing a new architecture so that today's Internet can exist in that architecture as well until fully being evolve in the future networks. In the clean slate approach, the system is redesigned from scratch to offer improved abstractions and/or performance, while providing similar functionality based on new core principles. The proposed architecture introduces the use of distributed framework to encapsulate the processed information from sensors to smart embedded system and semantic logic to semantic value based on Internet. However, distributed networks and IoT fusion model will infuse the capability of sensing to make the system intelligent. This talk focuses on hybrid network model for embedded systems to support the perspectives of new business models, service architectures, and application procedures as well as association with an emerging technology. In this talk I would like to emphasis following issues: what are the most appropriate distributed architectures to support smart city services? What are the most suitable ways to the management of Global e-Healthcare Monitoring Applications? What is the most appropriate way to improve establish a distributed networks of IoT services? Finally, I will present test-bed and simulation scenarios for the smart city scenario and connected vehicle services.

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