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Abstract

Digital India is the new vision to improve the quality of life by putting the technology into a new face. The smart city leads to digitization of cities, making services more transparent, efficient and easily accessible. The rapid increase in the use of multimedia services on wireless devices has increased the demand of streaming videos sharply. The use of H. 264/SVC video standard over H. 264/AVC standard has gained large popularity recently because of its non-rigid nature. H. 264/SVC supports temporal, spatial and SNR scalability. This paper demonstrate the theoretical concept of these three types of scalability followed by impact of interface queue length (IFQ) and channel access mechanism on streaming videos transmission over Mobile Ad

Hoc Network (MANETs). These network parameters are evaluated using network simulator 2 (NS-2) software integrated with scalable video streaming evaluation framework (SVEF).

References

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- . Bin Zhan, Baochun Hou and Reza Sotudeh (2008), "An Efficient Fast Mode Decision Algorithm for H. 264/AVC Intra/Interpredictions," IEEE International Conference on Acoustics, Speech and Signal Processing, Las Vegas, pp 1057 – 1060.
- . Thomas Wiegand, Gary J. Sullivan, Gisle Bjøntegaard, and Ajay Luthra (2003), "Overview of the H. 264/AVC Video Coding Standard," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 13, No. 17, pp 560-576.
- . Y. Liu, Y. C. Soh and Z. G. Li (2007), "Rate Control for Spatial/CGS Scalable Extension of H. 264/AVC," IEEE International Symposium on Circuits and Systems, New Orleans, pp 1746-1750.
- . https://en.wikipedia.org/wiki/Streaming_media
- . Dan Rayburn (2013), "Streaming and Digital Media: Understanding the Business and Technology," National Association of Broadcaster.
- . Balaji L and Thyagarajan KK (2013), "An Adaptive Rate Control Scheme for H. 264 Scalable Video Coding," International Conference on Green Computing, Communication and Conservation of Energy, Chennai, pp 40-44.
- . C. E. Fossa and T. G. Macdonald (2010), "Internetworking Tactical MANETs," Conference on Military Communications, San Jose, pp 611-616.
- . George Aggelou (2005), "Mobile Ad Hoc Networks: From Wireless" LANs to 4G Networks," McGraw Hill.
- . S. Neelakandan and J. Gokul Anand (2011) "Trust Based Optimal Routing in MANET's," International Conference on Emerging Trends in Electrical and Computer Technology, Tamil Nadu, pp 1150-1156.
- . Mrinal Kanti Deb Barma, Rajib Chowdhuri, Nikhil Debbarma, S. K. Sen and Sudipta Roy (2013), "Enhancing the Performance of AODV using Node Remaining Energy and Aggregate Interface Queue Length," International Symposium on Computational and Business Intelligence, New Delhi, pp. 77-80.
- . <http://www.isi.edu/nsnam/ns/>
- . Andrea Detti, Giuseppe Bianchi, Claudio Pisa, Francesco Saverio Proto, Pierpaolo Loreti, et al. (2009), "SVEF: an Open-Source Experimental Evaluation Framework for H. 264 Scalable Video Streaming," IEEE Symposium on Computers and Communications, Sousse, pp. 36-41
- . Sikora T (1997), "MPEG digital video-coding standards," IEEE Signal Processing Magazine, Vol. 14, No. 5, pp. 82-100.
- . <http://ube.ege.edu.tr/~boztok/JSVM/SoftwareManual.pdf>
- . JSVM Software Package (2006), CVS server for the JSVM software.
- . https://en.wikipedia.org/wiki/Scalable_Video_Coding.
- . Gregory J. Conklin and Sheila S. Hemami (1999), "A Comparison of Temporal Scalability Techniques," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 9, No. 6. pp. 909-919.

- . https://en.wikipedia.org/wiki/Group_of_pictures.
- . Jian- Sheng Wu, Gwo-Long Li and Mei-Juan Chen (2012), "Effective Complexity Control by Inter-Layer Motion Analysis for Spatial Scalability Video Coding," IEEE International Conference on Signal Processing, Communication and Computing, pp 78-83.
- . Chih-Heng Ke (2012), "myEvalSVC: an Integrated Simulation Framework for Evaluation of H. 264/SVC Transmission," KSII Transactions on Internet and Information Systems Vol. 6, No. 1, pp 379-394.
- . Behrouz A Forouzan (2012), "Data Communications and networking" fourth edition, The McGraw Hill Companies Publications, New York.
- . Heiko Schwarz, Detlev Marpe, and Thomas Wiegand (2007), "Overview of the Scalable Video Coding Extension of the H. 264/AVC Standard," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 17, No. 9, pp 1103-1120.
- . Mrinal Kanti Deb Barma, Rajib Chowdhuri, Nikhil Debbarma, S. K. Sen and Sudipta Roy (2013), "Enhancing the Performance of AODV using Node Remaining Energy and Aggregate Interface Queue Length," International Symposium on Computational and Business Intelligence, pp. 77 – 80.
- . Teerawat Issariyakul and Ekram Hossain (2012), "Introduction to Network Simulator NS2", Second Edition, Springer publications, London,
- . https://en.wikipedia.org/wiki/Channel_access_method.
- . Hossam Fattah (2007), "Analysis of the Channel Access Mechanism in IEEE 802.11 Wireless Local Area Networks," Conference on Communications, Computers and Signal Processing, Victoria, pp 74-77.
- . https://en.wikipedia.org/wiki/IEEE_802.11e-2005.
- . Pierre Ferre, Angela Doufexi, Andrew Nix and David Bull (2004), "Throughput Analysis of IEEE 802.11 and IEEE 802.11e MAC," Wireless Communications and Networking Conference, Vol. 2, pp. 783-788.
- . <http://svf.netgroup.uniroma2.it/>

Computer Science

Index Terms

Wireless

Keywords

Mobile Ad Hoc Network Digital India Smart City Streaming Videos Svfc Ns2 Ifq Edca.

