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Bandwidth conservation framework for mobile cloud computing: Challenges and solutions (Conference Paper)

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Abstract

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Mobile devices are rapidly transforming the nature of the computing industry. It is promising to be the super future computers. Challenges including network bandwidth limitation, unavailability and limited storage are among the limitations facing Mobile Cloud Computing, MCC as the number of mobile devices accessing the cloud services are rapidly growing. This paper reviews state of the art of mobile cloud computing as well as summarizes the latest challenges and solutions. It also proposes a bandwidth conservation framework that helps constrained users to reschedule bandwidth allocation instructions which is a major problem in MCC. © 2014 IEEE.

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Cai, Z. , Chen, C. , Wang, Q.
(2013) *2013 8th International ICST Conference on Communications and*

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Publisher: Institute of Electrical and Electronics Engineers Inc.

Networking in China, CHINACOM 2013 - Proceedings

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- 1 Zhong, L., Wang, B., Wei, H.

Cloud computing applied in the mobile Internet

(2012) *ICCSE 2012 - Proceedings of 2012 7th International Conference on Computer Science and Education*, art. no. 6295061, pp. 218-221. Cited 11 times.

ISBN: 978-146730242-5

doi: 10.1109/ICCSE.2012.6295061

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- 2 (2011) *National Institute of Standards and Technology (NIST)*, p. 7. Cited 454 times. Special Publication 800-145, September

- 3 Zhang, X., Kunjithapatham, A., Jeong, S., Gibbs, S.

Towards an elastic application model for augmenting the computing capabilities of mobile devices with cloud computing

(2011) *Mobile Networks and Applications*, 16 (3), pp. 270-284. Cited 148 times.

doi: 10.1007/s11036-011-0305-7

[View at Publisher](#)

- 4 Wang, S., Dey, S.

Adaptive mobile cloud computing to enable rich mobile multimedia applications

(2013) *IEEE Transactions on Multimedia*, 15 (4), art. no. 6413270, pp. 870-883. Cited 77 times.

doi: 10.1109/TMM.2013.2240674

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- 5 Qi, H., Gani, A.

Research on mobile cloud computing: Review, trend and perspectives

(2012) *2012 2nd International Conference on Digital Information and Communication Technology and its Applications, DICTAP 2012*, art. no. 6215350, pp. 195-202. Cited 76 times.

ISBN: 978-146730733-8

doi: 10.1109/DICTAP.2012.6215350

[View at Publisher](#)

- 6 Nkosi, M., Mekuria, F.

Improving the capacity, reliability & life of mobile devices with Cloud Computing

(2011) *2011 IST-Africa Conference Proceedings, IST 2011*, art. no. 6107381. Cited 3 times.

ISBN: 978-190582426-7

- 7 Qingfeng, L., Xie, J., Jicheng, H., Hongchen, Z., Shanshan, Z.
An optimized solution for mobile environment using mobile cloud computing
(2009) *Proceedings - 5th International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2009*, art. no. 5302240. Cited 16 times.
ISBN: 978-142443693-4
doi: 10.1109/WiCOM.2009.5302240
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-
- 8 Qureshi, S.S., Ahmad, T., Rafique, K., Shuja-UI-Islam
Mobile cloud computing as future for mobile applications - Implementation methods and challenging issues
(2011) *CCIS2011 - Proceedings: 2011 IEEE International Conference on Cloud Computing and Intelligence Systems*, art. no. 6045111, pp. 467-471. Cited 49 times.
ISBN: 978-161284201-1
doi: 10.1109/CCIS.2011.6045111
[View at Publisher](#)
-
- 9 Satyanarayanan, M., Bahl, P., Cáceres, R., Davies, N.
The case for VM-based cloudlets in mobile computing
(2009) *IEEE Pervasive Computing*, 8 (4), art. no. 5280678, pp. 14-23. Cited 1077 times.
doi: 10.1109/MPRV.2009.82
[View at Publisher](#)
-
- 10 Ye, Y., Jain, N., Xia, L., Joshi, S., Yen, I.-L., Bastani, F., Cureton, K.L., (...), Bowler, M.K.
A framework for QoS and power management in a service cloud environment with mobile devices
(2010) *Proceedings - 5th IEEE International Symposium on Service-Oriented System Engineering, SOSE 2010*, art. no. 5569901, pp. 236-243. Cited 25 times.
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