Abstract

Wireless Sensor Networks (WSN) and cloud computing are the present day technologies which enable novel and attractive solutions for information gathering and accessing it across the globe. There is a meticulous research going on in the labs and universities on these areas. However there are obstacles that must be overcome before the full potential of this can be realized. One such obstacle is the sensor data cannot be accessed globally. The insight of this paper is to elaborate and analyze the critical issues in WSN and which can be solved by integrating it with the cloud. The main objective of this paper is to make sensor data available across the globe and reduce the maintenance costs.

References

- Ezer Osei Yeboah-Boateng, Kofi Asare Essandoh February 2014 "Factors Influencing the Adoption of Cloud Computing by Small and Medium Enterprises in Developing Economies";
- L. Mihaylova, A. Nix, D. Angelova, D. Bull, A. Munro, Canagarajah "Information Management Methods in Sensor Networks";
- Brendan Jennings and Rolf Stadler "Resource Management in Clouds: Survey and Research Challenges"
- Rohit Bhadauria, Sugata Sanyal "Survey on Security Issues in Cloud Computing and Associated Mitigation Techniques"
- Khandakar Entenam Unayes Ahmed, Mark A Gregory "Integrating Wireless Sensor Networks with Cloud Computing"
- Jaeseok Shim and Yujin Lim "Implementation of Real Time Alert System over Cloud computing"
- Nabil Sultan "Cloud computing for education: A new dawn?"
- Pengfei You, Yuxing Peng "An Architecture Model of Sensor Information System Based on Cloud Computing"
- Laura DuBois, Richard L. Villars, and Brad Nisbet "Optimizing Information Management in the Cloud"
- Reza Sahandi, Adel Alkhalil, Justice Opara "Cloud computing from SMES prospective a survey based investigation"
- Bhavani Thuraisingham "An overview of infrastructures and data managers for dependable sensor networks"
- Khandakar Entenam Unayes Ahmed, Mark A Gregory "Integrating Wireless Sensor Networks with Cloud Computing"
- Wen-Yaw Chung, Pei-Shan Yu, Chao-Jen Huang "Cloud Computing System Based on Wireless Sensor Network"
- Cong Wang, Qian Wang, and Kui Ren "Ensuring Data Storage Security in Cloud Computing"
- QiHana, Sharad Mehrotrab, Nalini Venkatasubramanian "Application-aware integration of data collection and power management in wireless sensor networks"
- Yanlei Diao, Deepak Ganesan, Gaurav Mathur, and Prashant Shenoy "Rethinking Data Management for Storagecentric Sensor Networks"
- T. Ravi Kumar and K. Raghava Rao "Sensor data analysis and management in wireless sensor networks"
- David Chu, Amol Deshpande, Joseph M. Hellerstein, Wei Hong "Approximate Data Collection in Sensor Networks using Probabilistic Models"
- Ousmane Diallo, Joel J. P. C. Rodrigues, Mbaye Sene "Real time data management on wireless sensor network: A survey"
- Vongsagon Boonsawat, Jurarat Ekchamanonta, Kulwadee Bumrungkhet, and Somsak Kittipiyakul "XBee Wireless Sensor Networks for Temperature Monitoring"
- Quan Le-Trung, Dr. techn "Research areas in Wireless Sensor Networks"
- Madhav Bokare, Anagha Ralegoonkar "Wireless Sensor Network: A Promising Approach for Distributed Sensing Tasks"
- Quan Le-Trung, Dr. techn "Research Areas in Wireless Sensor Networks"
- Omid Bushehri, Yousef Emami, Reza Javidan "Automatic Management of Wireless Sensor Networks through Cloud Computing"
- B. Thirumala Rao, Dr. L. S. S. Reddy "Survey on Improved Scheduling in Hadoop"
MapReduce in Cloud Environments:
- Vijjdra, Sudhir senai “Survey On Scheduling Issues in Cloud computing”;
- Nelson Gonzalez, Charles, Fernando Red’golo, Marcos Simpl, Tereza Carvalho, Mats N¨aslund2 and Makan Pourzandi 2012 “A quantitative analysis of current security Concerns and solutions for cloud computing”;
- Mohamed Magdy Mosbah1, Hany Soliman , Mohamad Abou El-Nasr “Current Services In Cloud Computing : A Survey”;
- Jingwei Huang and David M Nicol “Trust mechanisms for cloud computing”;
- Dana Petcu1, Beniamino Di Martino, Salvatore Venticinque2, Massimiliano Rak2, Tamás Mahr,Gorka Esnal Lopez, Fabrice Brito, Roberto Cossu, Miha Stopar, Svatopluk Šperka and Vlad Stankovski “Experiences in building a mosaic of clouds”;
- Yi Zou and Krishnendu Chakrabarty 2003 “Sensor Deployment and Target Localization Based on Virtual Forces”;
- Wen-Yaw Chung, Pei-Shan Yu, Chao-Jen Huang “Cloud Computing System Based on Wireless Sensor Network”;
- Yanlei Diao, Deepak Ganesan, Gaurav Mathur, and Prashant Shenoy “Rethinking Data Management for Storagecentric Sensor Networks”;
- Ant´onio J. Pires, Erico Meneses Le˜ao, Jo˜ao P. Sousa, Luiz Affonso Guedes, and Francisco Vasques “Real-Time Communication for Smart Sensor Networks: A CAN Based Solution”;

**Index Terms**

Computer Science  Distributed Systems

**Keywords**

Cloud computing  Wireless Sensor Networks  Information management using cloud

Sensor management
Software as a Service (SaaS)

Platform as a Service (PaaS)

Infrastructure as a Service (IaaS).