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Abstract

Data Center Management is an important challenge in the fast era to fulfill ever-evolving computational demand around cloud computing, big data and infrastructure. DC (Data Center) are used to resolve the issues related to overutilization of resource, application failures, data security, power usage effectiveness and infrastructure costs which requires proactive solutions that are business intelligent and built over a network of sense-points with the help of sensor networks that are suitable to deliver reliable trends. Sensor networks with telemetry and control functions is used for collection & delivering of the data by improved server rack utilization, improved DC cooling and load balancing with dynamic capping is used. SCADA system is used with sense-point data to process the information wireless sensor networks in DCs comprises sensor nodes, gateways, routers, server platforms and software application for the overall management of various application.

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Index Terms

Computer Science Wireless

Keywords

Wireless Sensor Networks (WSN), Supervisory Control and Data Acquisition (SCADA), Gateway, Genetic Algorithm (GA), Sub Networks, Data Center (DC), Power Usage Effectiveness (PUE).