

1 Summary:

1.1 Motivation/purpose/aims/hypothesis:

In this paper the author, Tsukasa Kudo proposed a data model on fog Computing, which is a layer of cloud computing. In that his proposed model, he used a distributed database. This distributed database has three level. The level two and level three of the database are in the cloud server. This proposed data model with the distributed database basically work like the the original sensor data in the fog however, which is mainly in the cloud server. The purpose behind this research paper is that the solution of network bandwidth issues and delay in feedback control of sensors in cloud computing. So the author, propose Fog computing with a data model with distributed database which offer easy data transfer in Fog nodes.

1.2 Contribution:

The contribution of this research paper is that the author proposed the three levels distributed database of a data model and this model refer the original sensor data from the cloud server.

1.3 Methodology:

The author implemented this reference by using MongoDB, a NoSQL database. In here, there is two way for referencing the fog node. One is server-side reference and another one is node-side reference. And fo this experiment two PCs were used which is consist of 1 Gbit HUB as the fog node and server.

1.4 Conclusion:

The experiments show that the proposed data model is better than traditional cloud computing methods. By using this data model, the amount of data which have to be transferred in the cloud can be reduced. And this data model is also useful for data transfer and referencing and also solve the problems of network bandwidth issues and delay of sensors.

2 Limitations:

2.1 First Limitation/Critique: First limitation of this research paper is the experiments and the experimental setup were took place in an theortical conditions along with high-performance computers and a stable network bandwidth. So this performance can be change in practical world where the resources are very limited.

2.2 Second Limitation/Critique:

Second limitation of this research paper is that, they concern about the performance and the reference of the proposed methods. However, the data security and backup of the sensitive data was not included.

3 Synthesis:

The data model which is proposed in this research paper can be used in different type of sectors where the work is related with sensor data and this type of data needs to be send in fog or cloud database. In future this data model can be efficiently used by providing security and backup of sensitive data.