A Layered Architecture for Fog Computing for an Effective Real Time Data Processing

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Abstract

IoT (Internet of Things) is one of the greatest needs and requirement of the today’s living. As we see we are in the era of sensor based devices and gadgets which are dealing with real time data with high volume that demands processing with high speed and velocity along with better security, not only the smart phones but smart homes, smart factory, smart grid, smart agricultural, even smart control systems like smart traffic A-Z are shifting towards IoT via sensors. When talking about the solution for processing and storing the large amount of data, one solution has come up is cloud but with increase in the application of sensors and real time devices, the resource management with high security of heterogeneous data is one of the key concern. We can say that cloud computing deals with computing and storage at the public cloud i.e. at data centers. Obviously, the user data takes longer duration to reach to the data centers and then it gets processed. So, fog computing is being introduced, that works at the user side i.e. at the private cloud thereby providing less time duration for processing the data with high security. It supports the virtualization and visualization and thus provides substantial amount of storage rather than trivial storage.
References

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Index Terms

Computer Science Information Sciences

Keywords

Fog Nodes, Edge network