Fog_Edge_computing1

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"Mobile Edge Computing: A Survey"

a)

- This paper briefs and defines MEC(Mobile edge computing) used in 5g networks and How it's different from MCC and FOG and other similar architectures such as Cloudnet.
- IT provides deep insights on the advantages, disadvantages, applications close to RAN, security & privacy research constraints and open issues related to MEC.
- With the use of MEC and high computation, ultra-high latency, bandwidth and QoE,QoS is provided to the users as the cloud is nearby eg ,SDN Networks,V2X solutions, smartgrids, healthcare sectors etc.
- MEC implementation can create an environment for various elements of network system in 5g such as OTT,app developers, network and mobile operators etc .

b)

- In Mobile edge computing the Cloud resources are installed closer to the RAN(Radio Access Networks).
- The whole idea is to optimize the Network elements in 5g and bring the intelligence, processing and communication power towards the RAN.
- This offers the user with quick and robust computing, power-energy efficiency, mobility, context awareness and storage capability boost.
- The key objective of MEC is to tackle the challenges that are hailed from MCC architecture.

c)

- MEC offers Computational Offloading where the mobile device scalability is improved by transferring computation to superior resourceful server which are placed at a different site.
- Low Latency is achieved with less transmission delay and better response time with proper scaling.
- Storage is improved using more data centers closer to the edge and RAN, hence increasing its scalability
- Energy Efficiency is achieved by optimizing the resources and by transferring computationally intensive tasks towards the edge.

"Securing Fog Computing for Internet of Things Applications: Challenges and Solutions"

a)

- With high number of IOT sensors, heterogenous computational data is also huge, so fog computing comes to the rescue.
- This survey compares cloud and fog and briefs about the features of fog architecture and their nodes, services, distributed computations and storage.
- With the use of Fog and elevated computation bandwidth, ultra-high latency and QoS is provided
- Survey Identified numerous open research problems related to security & privacy in fog computing

b)

- Three layered decentralized architecture containing device, fog and cloud layer respectively.
- Various actors of Fog related apps are Real time traffic lights, healthcare tracking and de-centralized vehicular navigation, smart grid etc.
- Security threats related to Fog computing such as forgery, tampering, spam, jamming eavesdropping, location privacy etc.
- Solutions to security challenges of various roles such as "Real time services, transient storage, data dissemination and decentralized computation."

c)

- Ultra-Low Latency is accomplished with less transmission delay and better response time with proper scaling.
- Fog provides Computational Distribution where the scalability is improved by moving computation to superior resourceful server in a closed proximity.
- Huge chunk of data can be collected, stored and processed and filtered out offers more scalability.
- Energy efficiency, power and storage is improved by scaling of Cloud.

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