Mobile Edge Computing: A Survey [1]

1. Mobile Edge Computing adopts a three layer architecture which the MEC is a middle layer between the host and server.
2. MEC can increase bandwidth capabilities and lower latency for end users.
3. MEC create an extra layer which is prone to DOS attacks.
4. With a Cloudlet, which brings content is closer to the user.

1. MEC current applications included Augmented Reality as AR has a high computational usage that MEC can improve the usage.
2. Video Analyst with MEC can help bring intelligence to Surveillance.
3. Potential technologies included Ocean and climate monitoring as MEC will lower any delays and help with real time analyses.
4. MEC technology shifts power consumption from end user devices to edge network.

1. Fog computing can increase computational power as it offloads to edge devices
2. Communication challenges as with edge devices is an extra point of weakness. Security issue
3. End user devices have limited storage which cloud computing can be used to overcome shortage or limits.
4. With fog computing, there can be lower latency with a mid point as a server/source.

Survey of Fog Computing: Fundamental, Network Applications, and Research Challenges [2]

1. Cloud computing limitation is the large end to end delay, which can be improved with fog computing.
2. OpenFog Consoritum gives a few characteristics of Fog, which included “low latency and location awareness … wireless access … real time applications” as some examples.
3. A strength of Fog is that large data does not need to be send to the cloud which can cause congestion, the computation can be done locally.
4. Fog compared to cloud needs less maintenance.

1. Suggested Fog into 2 tier to give a lower delay or resources for different applications.
2. SDN can give flexibility to architecture without any physical changes needed.
3. Fog computing can give the flexibility to smart energy grids in its service.
4. Fog Radio Access Network are equipped with a cache that give them favour to be used in smart cities for traffic congestion.

1. Cloud computing is heavy load where fog computing hopes to unload that computation load.
2. Fog computing is scalable as having more devices will increase the computational power.
3. Fog computing should lower the energy consumption of the cloud by offloading.
4. With fog computing the geographical location is important and can give more accessibility for more users.

[1] Nasir Abbas, Yan Zhang, Senior Member, IEEE, Amir Taherkordi, Member, IEEE, and Tor Skeie. “Mobile Edge Computing: A Survey”, IEEE Internet of Things Journal, Vol. 5, No. 1, February 2018.
[2] Mithun Mukherjee , Member, IEEE, Lei Shu , Senior Member, IEEE, and Di Wang. “Survey of Fog Computing: Fundamental, Network Applications, and Research Challenges”, IEEE Communications Survey & Tutorials, Vol. 20, No. 3, Third Quarter 2018