The emergence of FOG computing which has originated from cloud computing; what does their coexistence looks like?

Ihssan Alkadi
Louisiana State University, USA

The need for a much more improved traffic control and management, aka intelligent transportation systems, better massive storage, more accurate problem solving and computations, and effective network communication and performance across the nation prompted and motivated the cloud and computer experts to conceptually design “FOG” computing. The unique and brilliant design of FOG computing will enable each sector (governmental, private, and academic) to: Make software distribution and licensing easier since it is founded on the Cloud innovative technologies. It improves and makes the process of data analytics more potent and prompt in delivering results on time. It has time critical 5G applications (which run on Mobile devices run faster with the FOG) will be faster, accurate, and most importantly more readily available all the time and hence reliable and productive. Efficiency is key here. Fog computing is invented for that reason. Improve battery life for devices as well as energy use and lessening of its depletion. Fog computing also uses a unique and powerful “delay in utilization” technique to control and saves the life of batteries and energy in various important and sensitive devices. Bandwidth of networks by using 5G technologies solving the inadequacy of IoT and lack of efficiency problems. Traffic congestions and road bottlenecks can be predicted better and ultimately the use and utilization of FOG computing will resolve congestions and improve road management by applying and implementing better and more effective queueing algorithms. It helps in work and load balancing which is a carryover form the cloud computing paradigm. By having multiple instances of CPUs and virtualized hosts via multiple and different operating systems, enables FOG computing to furnish better work load completion in optimal and desired time as well as balancing the load across all connected serves on the FOG network. Motion control of devices is optimized via the application of effective motion analysis methods and techniques which reside in FOG computing servers in any network on any sector (governmental, private, and academic).

ialkadi@gmail.com