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Abstract

Edge computing is a distributed open IT architecture that enables systems to compute data near or at the source of information rather than relaying the information to the cloud. Edge computing enables real-time data processing without latency.

With increasing number of “things” getting connected to the internet, there is an increased necessity of processing the data on the edge in real-time and without latency. By 2023, there would be 13 billion IoT devices connected across multitude of devices and a considerable number of these devices would be leveraging rich media types like video. For example, a level 5 autonomous vehicle could generate around 3 terabyte (TB) of data per hour which would be analyzed to make real-time decision. Transmitting and storing all these data in real-time in centralized data centers is often undesirable apart from being costly and difficult. With edge computing capabilities, systems can perform efficient data processing as large amount of data can be processed at or near the source thereby reducing internet bandwidth usage. Computing data on the edge also eliminates the need for the relaying of information on the public cloud infrastructure thus enabling additional security of sensitive information.

In future we would see more companies, both OEMs as well as cloud service providers, joining the bandwagon of providing computing infrastructure on the edge. With increased adoption levels of IoT and reduction in prices, it opens up business opportunities for not only in the IoT space but also in the edge computing area. There would be newer business models evolving along the lines of providing edge intelligence platform services along with building computing networks closer to the source of data. Investments in these areas both in terms of money and human resources would enable organizations to stay ahead of the evolution and reap reward.