Industrial Edge Computing

Overview

Edge (fog) computing shifts computing applications, data, and services away from centralized servers to the extremes of a network. This enables analytics and knowledge generation to occur at the source of the data. Industrial IoT companies face challenges turning machine data into business intelligence. Existing cloud-based technologies do not solve problems of data analytics, software deployment, or updates and security for remote devices. Edge or fog computing solves the problem of accessing large amounts of machine-generated data by processing data at the edge of the network and converting it into actionable, useful business information. In an Intelligent Industrial Fog, software can be deployed at various points in the network to not only automate monitoring and control, but also to apply embedded intelligent agents that can adjust device behaviors in relation to ongoing performance variables, reduce running costs by reducing power consumption during off-cycles, or even detect imminent failures and notify technicians to perform preventative maintenance. Companies use edge computing technologies to analyze the data locally, sending only most important data to a centralised cloud. This reduces data transmission and storage costs while also allowing real-time analysis and action. Edge computing also allows remote software deployment and secure M2M communication. Edge computing leverages resources that are not continuously connected to a network, such as laptops, smartphones, tablets and sensors. It covers a wide range of technologies, from wireless sensor networks and mobile data acquisition to cooperative distributed peer-to-peer ad hoc networking and processing. Import IoT applications include remote cloud services, distributed data storage and retrieval, and self-healing networks.

Applicable Industries

- Aerospace
- Oil & Gas
- Rail & Metro

Applicable Functions

- Maintenance
- Production - Manufacturing

Market Size

Estimate A

According to a new market research report "Edge Computing Market by Component (Hardware, Platform, Solutions), Application (Smart Cities, Location Services, Analytics, Augmented Reality), Organization Size (SME, Large Enterprises), Vertical, and Region - Global Forecast to 2022", published by MarketsandMarkets™, the market size is expected to grow from USD 1.47 Billion in 2017 to USD 6.72 Billion by 2022, at a Compound Annual Growth Rate (CAGR) of 35.4% during the forecast period.

Estimate B

The global Edge Computing market is expected to grow at USD 19.4 billion by the end of year 2023 with 17.9% CAGR during forecast period 2017-2023.

Source: (marketresearchfuture.com)

IoT ONE Use Case

Accelerating the Industrial Internet of Things

IoT ONE is widely recognized as a leading Industrial IoT research firm, opinion influencer, and go-to-market channel.

1. Create a **free account** to view and download hundreds of IoT case studies and supplier profiles.

2. Already have an account? **Feature** your case studies, and your hardware and software solutions.

3. You can connect with us via email at **team@iotone.com**.

www.iotone.com