IOT SERVER

SYNOPSIS

This is a project for designing an IOT server to cater IOT and EDGE clients. There is no current standard for IOT protocol. Previous trend was to gather data and send data for switching using a server. IOT devices are being transformed to smarter EDGE devices.

Currently, vast amounts of data are sent by IOT devices which consume network and computing resources especially on data used for machine learning. Not all the data is needed in discrete form by many applications. EDGE devices can process the data to transform the data into aggregates and send it to the server. The server will be able to communicate with multiple EDGE devices concurrently. Over and above the TCP/IP connection, both server and EDGE device will set aside a UDP port. TCP port will be used for communication of control and reply commands while UDP will be used for sending data and acknowledgement. IOT and EDGE devices will not be restricted to gather only one type of data. While preparing IOT and EDGE devices, It can be configured to handle different types of data and the aggregation to be done on each of them. On one type of data , only one aggregation will be done. It will also have facilities for EDGE device to report problems and status.