Internet of Things IoT is an intermediate term used to refer to the interconnection of physical components with the ability to connect and exchange data, without human interaction, due to the integration of software and electronic components. The interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data. The term IoT describes a network of objects in your home or office that have sensors and software that enables them to communicate with each other using the internet. IoT is simply an extension of the internet into the physical world.

The Internet Internet-of-Things (II) is a concept that refers to direct communication between devices using any communications channel, including wired and wireless. The concept of the Internet IoT is the physical object controller, sensor and actuator. The IoT Equation is the Physical Object Controller, Sensor and Actuator Equation. Each physical system has a digital simulation twin that can simulate real-time sensor data that enters to the physical system and generates recommendations to improve the performance of the system at real time. Sensors can be real sensors or virtual sensors. Sens sensors can be either real sensors (virtual sensors)

Any IoT system should satisfy the 4S rule: Simple, Secure, Smart, Scalable and Scalable. A level-1 IoT system is suitable for modeling low-cost and low- complexity solutions where the data involved is not big and the analysis requirements are not computationally intensive. The level-2 IoT system has a single node that performs sensing andor actuation, stores data, performs analysis and hosts the application. A Level-2 device and Local Analysis is a device that performs both sensing and actuation and local analysis. This is the ideal schematic. A lot of data that is pushed to the cloud is

A level-3 IoT system has a single node. Data is stored in the cloud and application is usually cloud based. Level-2 IoT systems are suitable for solutions where the data involved is big. However, the primary analysis requirement is not computationally intensive and can be done locally itself. A level 3 IoT system is suitable for solution where the primary data is big, but the data is stored locally.

Level-3 IoT systems are suitable for solutions where the data involved is big and the analysis requirements are computationally intensive. A level-4 IoT system has multiple nodes that perform local analysis. Data is stored and analyzed in the cloud and application is cloud based.

Level-4 IoT systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are not computationally intensive. A level-5 IoT system has multiple end nodes and one coordinator node. The coordinator node is a level-4 system that contains local and cloud-based observer nodes which can subscribe to and receive information collected in the cloud from IoT devices.

Level-5 IoT systems are suitable for solutions based on wireless sensor networks in which the data involved is big and the analysis requirements are computationally intensive. A level-6 IoT system has multiple independent end nodes that perform sensing andor actuation and send data to the cloud. Data is stored and analyzed in the cloud and application is cloud-based. The analytics component analyzes the data and stores the results in the database. The results are visualized with the cloud based application. The centralized controller is aware of the status of all the end nodes and sends control commands.