

IOT Challenges, Solution Framework, And Implementation

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Abstract

The Internet of Things is a vast growing technology that is almost applicable in all fields and has simplified our lives. IOT is being used everywhere these days, including in smart cities, smart environments, security, smart business processes, smart agriculture, healthcare, and many more fields. Being able to cover various fields, is very challenging and presents various problems. This paper highlights IOT components, building blocks, enabling technologies, characteristics, applications, and products, as well as the issues encountered by them and lastly their causes. It brings forward seven steps of proposed solutions for handling and eliminating the problems encountered by almost all IOT devices and applications. The main aim of this paper is to provide the solution for all the issues which have been talked about for years but could not be able to resolve.

Keywords: Internet of Things (IoT), Issues, Enabling Technologies, Security, Privacy, Applications, Implementation, Proposed Solution

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1. Introduction

It's been a long while since the expression "IoT" was first discovered. Our lives are quickly driven into a fictional universe characterized as a virtual space given the quick improvement of the Web and correspondence advancements. It is capable and versatile enough to change with the surroundings with ease[1]. In the virtual world that the network provides, individuals can work, shop, and manage pets and plants. Human activities, however, cannot be fully executed through the services provided in the fictional space because people exist in the real world and services provided in the virtual world cannot entirely fulfill human needs. The difficulty of growing into an imaginary space limits the Internet from upgrading its services. IoT connects the real world to the virtual world which helps in overcoming limitations.

Sensor network technology places new requirements on Internet technology because it is based on a large number of affordable sensors and wireless communication. In this

context, it is improving due to the development of cutting-edge wireless technology. The presence of various objects, including RFID, NFC, sensors, actuators, and mobile phones are the basic principle behind this approach. The purpose of this article is to present existing Internet of Things (IoT) applications, technologies, and Issues [2] and to eliminate these issues we have proposed seven steps of the solution. IoT is a network that can store and exchange data online without the assistance of any human beings. It requires hardware, software, connectivity to the internet, electronic components, and electricity.

