INTERNET OF THINGS, EXAMPLES and ISSUES

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Abstract: *These days Internet of Thing is getting even popular with the way technology is moving and today's world is almost depend upon Internet of Things. From home facilities to traffic management in a smart city can help to develop a nation with Internet of Things. There are more advantages for using Internet of Things, but with usage of Internet of Things there is more number of frauds causes due to more usage and due to low privacy settings. There are three different levels of Internet of Things. To overcome of fraud and issue to Internet of Things can secure using the secured products.*

Keywords*: Internet of Thing, Examples of Internet of Things, Issues in IOT, Levels of IOT*

INTRODUCTION

These days Internet of Thing is getting even popular with the way technology is moving and taking its new form the internet of things changing everything about the world we live it from where we make purchases and even how we get energy for our homes. In the world of today you see people talking connecting but not for the voices but with things things, that are close to their heart and within arm's reach things that are at their fingertips that measure the inspiration and things that I've with them every step of the way all of it is possible because the Internet of Things has made it possible. [1]

Billions of things talking to each other providing insight continuously. How the world's best run businesses responding how they integrating the core of their businesses with the edge of the network. Simple they're connecting the business with technology to get these things to speak the same language gathering intelligence and transforming their existing business, processes and ultimately reimagining their customers' experiences, which in the end is turning millions of customers into millions of fun. Sophisticated sensors and chips are embedded in the physical things that surround us is transmitting valuable data that lets us better understand how these things work and work together how exactly do these devices share such large quantities of data and how we put that information to work.

Whether we are improving the production of a factory giving cities and real-time updates on where to park our monitoring a personal health it's a common Internet of Things, platform that brings divers information together and provides a common language for the devices and apps to communicate with each other. The process starts within the device itself with security communicates for the Internet of Things platform/ this platform integrates the data from many devices and applies analytics to share the

most valuable data with applications that address industry specific needs.

EXAMPLES OF IOT

Transportation system internet of thing is intended to play an essential role for Ivy to see its full potential there are many challenges that need to be addressed including collecting real-time vehicle information and on time delivery rate optimizing dispatch and fleet arrangement. To improve the operating performance and reducing manpower and fuel costs. The ultimate goal is to achieve a more efficient safe. Handheld device can be used to track location and movement of vehicles in real-time it not only helps fleet drivers complete their missions on time but also enables fleet. Managers to flexibly dispatch orders as for taxi fleet management wireless data recorder is a smart taxi solution integrating hail taxi app and taxi passenger matching service. It enables the taxi company to quickly locate the calling customer and assign a suitable taxi thus taxi idle time can be effectively reduced the result is greater fleet utilization and operation performance regarding public Transportation. Computer comes with features like power on/off delay and why temperature support it also can be used to monitor vehicle information like temperature pressure oil and engine speed for vehicle safety control besides this the in-vehicle. Digital signage solution enables customized contents so that marketing messages are aimed to target audiences. A cloud-based device management solution to manage all

the mobile devices over-the-air it facilitates administrative tasks like remote control real-time tracking and app management. It also protects corporate data with remote lock and wipe in case of devices stolen or lost.

There are million vehicles. Every year we spend hundreds of millions of rupees maintaining these roads. Dealing with flooding if we need where and when these problems might happen we could make better plans. So we put data sensors in our cities. the moments on our alarm posts and collected data on traffic flow weather and road maintenance. Then made all this information available in one place and called it the heart. Now we can repair roads more efficiently clean the cities only when they need cleaning with the right places at the right times we are creating more efficient systems to manage our highways to help save resources money.

BENEFITS AND RISKS

The Internet of Things describes the ever-growing number of intelligent objects that are being connected to the internet and each other. These systems are infiltrating the heart of our critical infrastructure and are forming the basis of current and future smart services. Smartphones tablets wearable technology and smart home devices are now being adopted into our everyday and they're starting to appear on enterprise networks. As we continue to embed these interconnected objects and a wider variety of wireless devices infiltrate enterprise infrastructure's the security risks posed by the Internet of Things is becoming more complex

and may have serious consequences. Some of these risks are already emerging, for example many Internet of Things devices in our homes can be connected to a smart hub for easier setup and use. Unfortunately some of these smart hubs contain serious vulnerabilities that could allow an attacker to walk up to the front door and unlock a smartlock that is connected to a smart hub. For specific smart hub products this is one hundred percent certain if the attacker successfully gains access to our home's Wi-Fi network. Vulnerabilities in these devices may also allow cybercriminals to search and locate these smart locks while driving around a city known as war driving. Attackers could then hack into the Smart Hub. To see which devices are attached and even monitors the home through its security cameras. By exploiting these security vulnerabilities hackers may become uninvited guest to our homes. [2]

A smartphone actually a multi-purpose pocket-computer, that stays connected at all times and goes with me wherever I go and with this simple device and I generate an astounding amount of personal information, like pictures and videos. My web browsing GPS locations financial information and even health information. Now here's a question what happens to all this sensitive data. We all know our data is stored locally on our devices but did you know they are also recorded onto third-party cloud storage systems. Where large businesses can learn more about their users. not only is this unfair privacy is also jeopardized as cloud systems have been prone to security attacks and sensitive data leak into the wrong hands every day and the plot is about to get much thicker. Everyday ordinary

household items and appliances like thermostats refrigerators alarm clocks, activity trackers and even light bulbs are being embedded with sensor technology. We are about to enter the age of the Internet of Things and it is predicted in a few years there will be millions of these devices. For this issues we need to build a product to connect with all your IOT devices and securely collect back up and transfer your data within your own network every piece of data in the product is encrypted individually and are only accessible to the primary users unauthorized parties would have to try to decrypt each piece of data individually if possible at all and for data sharing the product allows you to create your own circles this can be personal professional or even medical circles. Let your physician track your health and activity monitoring devices let your friends track the type of music you're purchasing set privacy restrictions on your service providers for a change the possibilities are endless and you will always be in control. Remember no institution and protect the privacy of your personal information better than you the product with power back into your hands

SECURITY MEASURES

The Internet of Things and the exponential growth of associated technologies have presently reached 6 billion connected devices. Machines connect to each other. This automatic exchange of information with no human intervention opens up a new world of services and products. the range of peyote solutions as well as the number of diverse environment within which it is used. Conversely generates the potential for security breaches to be established across this

heterogeneous web-connected thing. we are facing a global scenario where security is no longer an option but is a mandatory requirement that we need to address. There are three basic security premises to follow:

- **Prevention**: deter attacks to avoid losses
- **Detection:** identify attacks to enable rapid and thorough response
- **Respondents:** address and mitigate the incident as soon as possible in structured way to minimize losses and allow return to normal operating business.[3]

 There are three security levels

 Level 1) **Secure Network IOT infrastructure**: security measures used within the communication infrastructure such as virtual private networks dedicated and secure links.

 Level 2) **Secure IOT enable layer:** communication related alerts and automated responses these include the detection of replacement devices or a change in location or devices which shouldn't move. Such as a meat allowed to call only the authorized telephone numbers.

Level 3) **Secure IOT business IT and devices:** these extra security levels enables end-to-end security in our customers IT business and manage devices. level 3 offers comprehensive and
Innovative solutions including trusted public infrastructure provides a unique digital identity to IOT devices by our digital certificate SSL allowing mutually strong authentication

between the IOT solutions this society and the device. [4]

Thread detection: supplies and hence the information to improve awareness and inside of potential security exposure in the digital world and the associated identity threats and risks.

Vulnerability management delivers a global security view of the IOT solution through penetration testing and the identification of potential risks.

Security monitoring administers and protects IOT information with real-time alert notification and reporting.

Security incident response manages critical security incidents and resolution by implementing clear and agrees business solutions and protocol. [5]

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