

Review Paper on: Internet Of things With Cloud Computing and Identification for Agricultural IOT Deployments

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Abstract

Internet of things basically a system in which many computer devices are interrelated. It has the ability to transfer the data and the information over the internet without the requirement of human to human or human to computer interaction. Many industries and organisation using the IOT technology to perform many operations and complete the task, to increase the better understanding of the customer needs and provide the best services to the customers and increase the value of the business. Many devices that are consist with the embedded system with sensors. IOT technology also allow to control the things remotely on the existing network environment. According to this, Results like improve the accuracy, economic benefits and provide the efficiency also. IOT also implemented in the cloud efficiency also. With the help of IOT technologies, smart machines can interact and communicate with the other machines and find out the solutions.

Key Point: abstract, IOT with cloud computing, how it is beneficial for organisations, identification of agricultural IOT deployment, conclusion.

Introduction

The Internet of Things basically is the network of physical devices like objects, vehicles, buildings and many other items that can be embedded within the electronics, sensors and network connectivity. SO that all the devices and objects can collect and exchange the data and information. IOT also allow to the objects and devices to control remotely and sense the information and data over the

network infrastructure. IOT devices also used in medical and healthcare and notification system that can be used to monitor the heart rate and measure the blood pressure. IOT devices also used in various types of buildings. It may be public and private, industrial and institute in home automations. With the help of IOT devices, we can control and process the information between

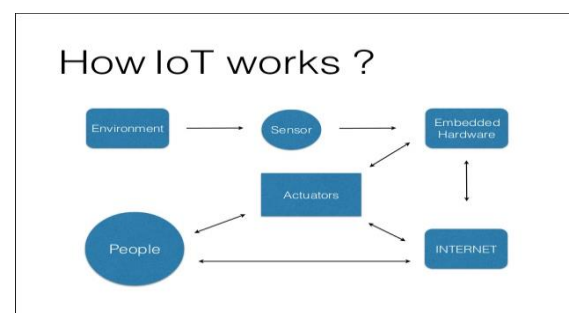
various transportation systems. Cloud computing basically a web based services that are accessed and processed the information and data without taking the permission of others. Internet of things with cloud computing involves broad networks access within the devices. It means that many device connectivity options are available. Enabling the cloud, the flow of data will be high over the network, so that big data will process in less time and process it very quickly. It is also beneficial to reduce the complexity of the data and information. Cloud computing in IOT is also beneficial for the security purpose and privacy like there are some encryption and authentication protocol, by applying these it is possible to manage and secure the identity of the users that they want to access the IOT devices.

How it works:

IOT basically consist of many devices and various sensors that are connected by various kind of the connectivity on the cloud, when we get the information and the data from the cloud, the software processes the data and the information. According to this, it will decide to perform some operations and take some actions like automatically information passes from one device o other ones and sense the information and data without the requirement of the users. The information and data acquire from the various platforms and environment by using the sensors and embedded systems. For example, our

cell phone have multiple sensors like camera, GPS and so many. But the cell phone can never sense the things. The most important thing is to collect and pick up the data and information from the surrounding environment to take the decision and perform some actions. In IOT, There is a need of internet because of so many reasons like it is a network of devices like vehicles that contains sensors, software that allows to connect the things and exchange the information and data between them. Also

They can interact with each other also. But the system does not need to connect with the internet. Smart devices can connect through the internet and can transfer the information and data between the devices. Due to interconnectivity of devices. They can exchange and collect the information and data through the embedded software and sensors for sense the information and data and things like sound and light extra. By the IOT technology organisation and companies increase and improve the productivity. It also allow to monitoring and managing and controlling the different processes also to apply the different operations on it to increase the productivity efficiently.



Information and data can be collected from the surrounding environment. Collected data and information can be sent to the cloud. To transfer the data from device and sensors to the cloud, we need some medium to transfer it. So for choosing the medium for transferring the information, IOT applications and systems are important. When the information reaches the cloud, the systems and applications need to process that data and information. Now the information should be available to the end users. This task will be done by notifications and triggering the alarm sounds on their phones or it may be text or some mail.

How IOT is beneficial for the organisations.

IOT is very much beneficial for the organisation in a smarter way. Smart devices that are developed by the IOT technology can easily sense the things and take the decisions quickly. The main benefits for the organisation using IOT techniques is to increase the productivity in the organisations. This technology also allows to monitor and manage the processes automatically and perform some different-different operations on the information and the data and achieve some desired results from it. With the help of IOT technology, information and data easily gather from the multiple devices. Dealing with a lot of information will be the biggest task for the organisations and achieve some benefits from it.

IOT also gives the opportunity to the persons to work together as a team. New advancement techniques developed by using the IOT like we get some notification in our phone, we have to respond quickly and know how the operations can be performed on it and how we can take some actions by applying some operations. We can make the decision in a better way and increase the productivity according to that. We also can achieve the customer centricity, gathering the big amount of information and data, in the organisation the operational cost will be reduced and the security measurement will be enhanced. Also beneficial in the smart devices that is used to increase the efficiency and effectively we can use it. Many companies and organisations are taking the help from the IOT to increase the productivity and to enhance the business and also to improve and increase the level of people's experience and understand the customer requirement. With the help of IOT, services of the organisations easily increase and also increase the level of customer satisfaction. The organisation easily uses the IOT models for their business and takes the huge amount of data from the different-different companies and from the customers. Also they can improve their product quality. By use of IOT, easily it tracks the information about anything and sends the information to the users and aware the user about the faults and errors that are occurring. IOT models help to increase the business profits and

benefits. IOT also give the tools and techniques to the organisation for security purpose. It will improve the security level of the organisation. It track the information quickly and inform to the users. There is some IOT devices that can analyse the information and take the action quickly and make some decisions. IOT technology is like a shield that is between the organisation and the users.

It is very much beneficial to reduce the operational cost to take and earn much profit in the organisation. Only they can more benefits if they use the IOT solution for their own purpose. There should be the great connection between the smart devices and the organisation. After that the cost will be reduce for the organisation and they will take more benefits by using that. IOT device can also be used to find the technical problems from the systems and remove it from the system.

Identification for Agricultural IOT Deployments

We should focus on our systems that are deployed for maintaining and monitoring various agriculture parameters like solar-radiations, humidity, soil, temperature. For irrigation management and for the agriculture management that are focusing on the information and communication techniques. Some

kind of methods and models that are used by the IOT provider services use that sensors for monitor and measure the weather, water, plant, that all monitoring the use of IOT for agriculture. The blind identification approaches that will be evaluated for the remote server and for the master node to reducing the not necessary network transmission between the remote server and the master node.

If the sensed information and the data leaves the master nodes, that will collect the information form various devices and locations and forward that information to the master node.

Conclusion.

The conclusion of the paper is that data and information that is travelling from the devices to devices over the internet can be exchanged and share with each other. It is also beneficial for the security purpose for the technology to grow up and to keep the connectivity with all the demands. Productivity also will increase and amazing things will come into the existence in the world. As the designer of the IOT devices. You must have to use the modern best practices for delivering the secure products to the end users and the customers. The main is that our society is totally depend on the internet, we can easily search and take the result from the internet and also can full-fill our desires to improve our skills and grow up the business. Most of the data and information traffic will created and generated by the persons through

email and the web other services. It also allows to build more tasks automation to better and best interaction with the real world environment Information digitization processes have to design of the computers, phones and other machines that is offering the standalone computer machines. But a technology that you will need to keep in mind from the prototype and the deployment to a long term support. IOT inherits many of the security problems networked computers that

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