

The Internet of Things:

IT Executive Exchange

Friday, May 10, 2013

The topic of the meeting was the internet of things. This meeting was used to focus on how devices will be used to communicate with each other, collect data, and generally be available for “smart” behavior. It also looked at the possibility and implications regarding this type of technology to become mainstream.

What is the “Internet of Things” and how is it being used?

One thing that is present in society is a multitude of devices that have some sort of intelligence. There is a question now of what is available and what can we do with all of these devices and the data they create.

As far as a business model using these types of devices it is necessary to look at what will be useful and feasible and not just “cool.” Some companies are offering products that make current devices internet capable while others create new products that work either through WiFi or cell towers.

The shift is now to make these products integrative. Examples of ideas include having stoves, lights and garage openers all being controlled by an app on a cell phone. Hospitals and other businesses are also looking to use this type of technology to predict when the product may fail and to monitor different aspects and data provided by the product.

The product must first be internet enabled and it must have firmware that makes the product “intelligent.” There

also must be somewhere for the data to be collected and stored. A connection must also be established for the data to travel back and forth.

Currently hospitals are one of the main consumers of internet enabled devices. The market is still growing and as the number of the devices grow the market will continue to grow.

Companies such as Cisco, GE, SAP, and IBM are quickly coming up with new models and spending a lot on marketing and advertising.

Even companies that are not going to be selling internet capable devices directly to consumers they may still be interested in this idea for their production lines and operations.

Problems and Concerns

Many of the products do not have strong enough connectivity to work with the new retrofit kits and therefore it may become necessary to “bulk up” this product.

Another problem is that if every product becomes controllable by a cell phone it may be less consumer friendly to have 50 applications controlling 50 devices and at this point it is necessary to create one application that combines all the control in one area.

One concern of any business is ensuring that there is a return on their investment. Currently it is difficult to see an ROI on mass use of these devices.

Currently, each company is creating their own platforms and their own devices. As the number of internet enabled devices grows it will become necessary to create standards to ensure the devices work together and are able to communicate.

Due to the large amount of data and communication that will become necessary as the amount of devices grow it may become expensive to pay for enough bandwidth to allow for all of the communication. It may also become necessary to develop a quality of service standard.

A very large concern is the cost of these devices and whether or not consumers will be willing to pay for the long term costs of making a product internet capable. The current business model is that consumers will pay for something one time and continue to use it until it breaks or they justify paying for a newer model but they are not willing to pay for the continued use of an item unless they are receiving some excellent benefit.

The large amount of data that is generated through these internet capable devices creates a problem of data storage and raises a question of where to store the data as well as how long to keep it.

A concern of duplicate data becomes problematic when the device or product is not smart enough to realize that the information is duplicating and could lead to problems in inventory counts, operations and data storage.

Having this kind of information also puts pressure on the companies to know more about their customers and raises expectations of the customers on to what is being advertised to them.

Security

A question that will arise as these devices become more popular is how secure are they and who will have access not only to the devices but also to the data that is created by these devices.

An example was given of someone controlling an insulin pump through the product number from half way across the world and theoretically being able to kill someone through the internet.

Once these devices are enabled and the data is created a question is raised as to who owns the data and what can be done with that data.

The information may be connected to the item and therefore once the item is resold the information could travel with it and allow for future users to find out the private information of the past users.

Future Outlook

The possibility of over infatuation was brought up and is recognized as a possibility. The reality is that these devices will exist and they will continue to grow but the rate of acceptance and growth may not be quite as high as predicted and many issues may be raised that have not been thought of yet.

Areas of predicted use consist of body sensors used to test blood pressure, look for diseases and look at overall health for check-up and insurance purposes. It will also be used in areas like car insurance pricing with things like the driving monitor used by progressive.

These products will be ones that lead the customers instead of ones that are developed after the customer expresses a need.