



IoT Use Cases that have transitioned from Theory to Reality

The “Internet of Things” (IoT) came to the forefront of technology innovation over a decade ago. With it came a lot of potential “What if” scenarios on how this new technology could be a game changer in both industry and in consumer products. The first five years was filled with a lot of theory and proposed solutions to solve a multitude of business challenges. It has taken the past 5 years to turn this potential and create real usable solutions.

Why so long? It has taken this long for the IoT technology stack to mature and also to become affordable in terms of providing a valuable asset and scalable solution at a price point that the market could bear. If you are an Original Equipment Manufacturer (OEM) or Manufacturing Organization, the ability to enhance your product offering or your company’s operations are now a possibility in reality with the utilization of IoT technology.

Three key use cases that have matured from a “What if” scenario to real usable IoT solutions are:

- ◆ Connected Operations
- ◆ Connected Service
- ◆ Connected Customer

Connected Operations: OEMs and Manufacturers are always looking for methods and technologies to enhance their internal operations. This solution set comes from the integration of a multitude of technologies. These technologies have matured to the extent that most organizations can integrate them at a reasonable investment level, These technologies are centered around:

- 1) **Connecting Manufacturing and Operational assets** and providing a gateway to making the asset’s information around its status, operation and performance available for consumption and use
- 2) **Providing a IoT technology Hub** within Manufacturing and Operations to Store and utilize this information and make it accessible both locally through Edge Computing and providing this information to the Platform for gathering, analysis and solutioning.
- 3) **Visualization technology** to drive Visibility of Status, Next Step Actions and Metrics
- 4) **Analytical and Artificial Intelligence technology** to provide solution analytics: from Diagnostics to Descriptive to Predictive to Prescriptive next actions

Connected Service: For OEMs, the ability to create a “Closed Loop” learning environment for their products is something that now can be a reality . Going from Voice of the Customer, to Product Development and Manufacturing to obtaining “Real Life” in market use information is now viable through the IoT technology stack. This solution utilizes the same IoT technology stack that connected operations utilizes and utilizing it on in market products. The key here is to have products that are software controls versus the older generation mechanically controlled products.

Connected Customer: Organizations have always wanted to stay close with their customer base and involving them in current product feedback and integrating them into the process of getting real-time voice of the customer on new product ideas. Currently, most organizations only converse with their customers when an issue arises. Not the ideal situation to say the least. The IoT technology stack now allows companies to maintain a constant pulse and communication cadence with their customers. The frequency and mechanisms can be decided by your organization. The IoT technology stack provides for these multiple touchpoints via native APPs, Voice Commands, Event driven notifications and/or emails.

From our perspective, the IoT technology stack has come a long way and now can provide real scalable solutions for companies to drive new innovations to market and improve their internal capabilities using the same technology.

Next Month: The Importance of Driving Continuous Learning within your Product Development