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A New Era IoT Will Bring About

2016 was a year in which globalization permeated the furthest corner of the world to make it completely uniform. At the same time, it was a year of prominent conservatism in the Western world, exemplified by BREXIT in Europe and the Trump presidency in the US.

IoT is on the rise in the economic society that surrounds us, giving way to a new era in which everything is connected to the Internet.

IoT (Internet of Things) refers to interconnection of everyday things via the Internet. Interest in IoT has increased in recent years.

Moreover, similar concepts have been slated by corporations and governments of various countries, who are competing to take the lead. Such concepts include “Industrial Internet” coined by GE in the US, “Industrie 4.0” promoted by the German government, and Cyber Physical System (CPS) established by Japan’s Ministry of Economy.

Let’s take a look at what type of technology IoT is and how it has developed.

We first heard the phrase “Internet of Things” in 1999. It was coined by Kevin Ashton, an expert in RFID technology (also known as wireless tag or IC tag). RFID is a technology which enables the wireless communication of information using a small electronic circuit activated by electromagnetic waves.

One everyday example of where RFID technology is used is a non-contact, prepaid IC card for public transportation, shopping, and the like. RFID does not require a power source so it can be embedded in a variety of things to add digital information. RFID also enables tags to be attached to goods in transit so that their delivery status can be tracked online.

Ashton perceived this concept as the “Internet of Things” and

envisioned that society would change through the interconnection of various things to the Internet.

However, in 1999, information technology was not as advanced as it is today, and there were limitations on what could be done with RFID.

However, the first ten years of the 21st century saw the rapid advance of information processing capability, communication capability, and other factors necessary for the realization of IoT. Consequently, it is now possible to connect various things with the Internet and services utilizing IoT are emerging one after the next.

From April 2016, the SANYO DENKI Group began implementing the 8th Mid-term Management Plan.

Product development incorporating IoT technology is necessary in order to accomplish our Mid-term Management Plan.

Our products will be more reliable than ever once equipped with functions such as remote diagnosis and preventive maintenance, allowing their operational status to be assessed in real time.

Furthermore, sensors will be used throughout all areas of our production floor and by providing exhaustive information in real time, enabling to ascertain the status of component procurement, manufacturing progress, and product shipment. In this way, the pace of processes will increase dramatically and customers will be seeking higher quality service.

This Technical Report introduces SANYO DENKI's technical developments in 2016.

Although we have few specific product developments integrated with IoT so far, we remain confident that we can offer such products and more attractive services to our customers around the world in the future.