The "new" Internet of Things.

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The internet of things. A seemingly "new" movement that describes connected, smart, sensor enabled devices. But is this truly new? From a sensor standpoint, things are not that much different than 20 years ago. From thermostats to occupancy sensors, smoke detectors to O2 exhaust sensors, or even faucets without handles, many "smart" devices have been around now for a couple decades and some much longer. Is IoT about the connectivity? Or the "smarts," that in some cases is just the replacement of discrete logic with a micro controller and some lines of code? Having worked in IoT for almost 10 years, I will take a look back at the promises we made in the past and whether they have come to pass. I will examine recent trends and some of the classic examples of success and failure. Ultimately, it comes down to new business models for smart devices that will bring value to the customer and return enough revenue to those along the supply chain to fuel their drive for innovation. With electronics, MEMS, power management, radios, and memory all converging, will there be one chip to rule the internet of all?

Dr. Peter G. Hartwell is Senior Director of Advanced Technology at InvenSense. Peter has extensive experience in commercializing silicon MEMS products, working on advanced sensors and actuators, and specializes in MEMS testing techniques. Prior to joining InvenSense, Peter spent four years as Architect of Motion Sensing Hardware at Apple. Peter also worked as a Distinguished Technologist at Hewlett-Packard Laboratories. At HP, he was the MEMS lead on HP's 10 nano-g/rt Hz MEMS accelerometer forming the basis of HP's Central Nervous System for the Earth (CeNSE), an early version of what has become the Internet of Things. Peter has over 40 worldwide patents on MEMS and sensor applications. He has a B.S. in Materials Science from the University of Michigan and a Ph. D. in Electrical Engineering from Cornell University.