IBM Internet of Things—From Hype to Insight

CIMdata Commentary

Key takeaways:

- *Three transformational forces affect all industries—data (the what), cloud (the how), and engagement (the why)*
- *An important value of the Internet of Things is found in gaining insight that leads to action*
- *The Internet of Things generates a new scale of challenges—such as trusted devices and the need for security intelligence*
- *IT can no longer add value programmatically—the IT economy is being shaped by a cognitive era*

CIMdata recently attended IBM Analytics Day on April 9th, 2015 at the Museum of Natural History in New York City, where IBM issued its latest press release that continues their journey with their creation of the Internet of Things unit (previously announced on March 31st, 2015). The announcement in New York further refined the IBM commitment to the Internet of Things (IoT) with the announcement of related software, services and an ecosystem of partners and clients. The roughly 250 attendees at the half-day private event included industry analysts, partners, and clients.

Bob Picciano, Senior Vice President of IBM Analytics, opened the discussion with the concept that transformational forces that are affecting all industries are also elevating the importance of the Internet of Things:

- Data—the what
- Cloud—the how
- Engagement—the why

Mr. Picciano stated that the "data is the element of being able to take digitization and add the scale of analytics" and the "need to compress the synapse" of the gathering and the use of the data. This was an apt analogy of the human information synapse to the synapse of information transfer and the transformation of information. IBM sees the new value proposition for IT to be braced to enter a cognitive era by being ready to make dirty data and large volumes of data actionable. The end game is in the insight that is gained.

The event showcased several real world examples of how IoT is being used to have direct impacts on business revenues and people in their day-to-day lives. Mr. David Kenney, CEO of the Weather Company, shared how real time weather data is enabling airlines to more effectively avoid turbulence, which results in significant fuel savings and also provides improved passenger comfort and safety. Another example of leveraging weather information was identifying the correlation of how weather impacts the purchasing patterns for the foods or even hair products. Mr. Kenney also cast a vision of how predictive accuracy using IoT regarding significant weather events can be related to known historical impacts—enabling better emergency preparedness and decision-making.

As the event focused predominantly on the Internet of Things and the resulting demand for big data analytics, the coverage of IoT with regards to product development was light, but not absent. IBM announced that a significant component of their IoT strategy involves their

Product Line Engineering (PLE) offerings. The idea that systems of systems are empowered by designing IoT capabilities into products was prevalent in the use cases presented by Texas Instruments, Cummins, and DTE Energy, among several others. Reuse of requirements and configurations, refinement of design, and intelligent adaptation of offerings will rely heavily on data from IoT feedback mechanisms and the analytics that drive actions.

Wrapping up the event was a demonstration of the importance of security for IoT. In partnership with Texas Instruments, IBM is establishing tools, standards, and protocols for device-level protections and maintaining the importance of "trusted devices." Security and the anonymizing of data to ensure that devices are protected from hacking and that the data collected "does no harm." To demonstrate this partnership, IBM showed a real-time example of a parent monitoring a child's walking route using a cell phone and IBM Bluemix.

The challenge for all companies embracing IoT will center on security and upon non-invasive data usage. The past few weeks have shown that there is a lot of attention focused on the hacking of automobiles through what should be innocuous and benign electronic components. More and more attention in product design will be on employing a multidisciplinary systems engineering perspective on how sensors and data gathering can have unintended results. IBM seems to understand this. With IBM's new IoT business unit, with PLE, and with Bluemix the IBM story continues to evolve—we can all expect more details in the months to come.

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