

All-In on Cloud and Mobile at IBM InterConnect

CIMdata Commentary

Key takeaways:

- *IBM's executives made it clear that IBM is "all-in" on the cloud and mobile, the foci of the event, and they continue to make investments and acquisitions to build out their capabilities*
- *IBM has many strengths dispersed across several groups in PLM for smart, connected products, and customer cases are emerging that highlight their breadth of capabilities*
- *One thing IBM brings to the table that the traditional PLM solution providers do not is a long history and significant investments in analytics and cognitive computing*

Billed as "The Premier Cloud & Mobile Conference," IBM InterConnect 2016 is a sprawling event that had the Mandalay Bay Conference Center bursting at the seams with over 25,000 people from customers, partners, and IBM. IBM created this event last year by merging three separate events: Pulse (focused on their Tivoli offerings), Innovate (Rational), and Impact (WebSphere). All of these product offerings, and more, were on the exhibit floor, as well as 200+ sponsors representing a broad spectrum of solution and service providers, from large systems integrators to small independent software vendors (ISVs) that are part of IBM's huge ecosystem.

Three customers kicked off the first general session, unusual at such events but very effective. Mr. Richard Holmes, General Manager of Westpac Group Technology, an Australian banking and finance concern, played the host. A long-time IBM client, Westpac is leveraging cloud and mobile in their transformation to develop better experiences for their customers and users. IBM has been working hard to change the perception that they are just for big companies. Mr. Bill Alessi, CEO, and Mr. Prashant Bhuyan, Co-Founder and CTO of Alpha Modus, an investment start-up, provided a great example. They wanted to use Watson's Insights and Twitter sentiment analysis to supplement their own analytical models, and signed up for IBM Bluemix, IBM's hybrid cloud development platform, to experiment.¹ Watson is just part of a catalog of services and APIs from IBM, third parties, and other contributors. They took three days to build their solution on IBM's ample infrastructure and another seven to deploy it on the cloud. CIMdata applauds IBM's attempt to be more nimble and friendly to smaller companies. The power of the cloud is that companies do not need to worry about infrastructure, and small firms can hit above their weight using it.

In short order, Mr. Robert LeBlanc, Senior Vice President, IBM Cloud, took the stage and, since it was Las Vegas, laid IBM's cards on the table. IBM is all-in on hybrid cloud today and tomorrow, exclaimed Mr. LeBlanc, with all of the "relevant" software available on the cloud. They now have 40 data centers around the world, and are signing up 20,000+ new IBM Bluemix users per week. He challenged the audience to answer one question: How can I disrupt before I am disrupted? Mr. LeBlanc believes industry is at a tipping point, and IBM is working with many companies moving into this new hybrid world. In addition to big customers, IBM claims to have over 7,000 startups on the IBM Cloud. That tipping point has not yet come to the PLM space, but there are cloud successes across CIMdata's PLM segmentation,

¹ <https://developer.ibm.com/bluemix/2015/11/03/alpha-modus-reinvents-investment-with-bluemix/>

including computer-aided design (CAD), computer-aided machining (CAM), data and process management, and simulation and analysis (S&A). Industrial companies are getting more comfortable with the cloud and many are looking at a hybrid approach as championed by IBM.

IBM used the conference to make a wide range of announcements, too many to cover here. IBM Bluemix OpenWhisk seeks the rapid creation of new event-driven applications enabled by an open ecosystem. GitHub, known for their code-sharing service for developers, is partnering with IBM to deliver GitHub Enterprise across private and hybrid cloud environments. While IBM claims over 5,000 client engagements on mobile, in some ways developing end-to-end applications was still too hard. They needed to partner with a leader in mobile. Enter Apple, who offers over 1.5 million applications, downloaded over 100 billion times, developed by an ecosystem of 11 million developers seeking their fortunes by powering over 1 billion Apple devices. Mr. Brian Croll, VP for Product Marketing at Apple, claimed much of their success was attributable to XCODE, which Apple boasts “includes everything you need to create amazing apps for iPhone, iPad, Mac, and Apple Watch.”² Powering this native app development environment is the Swift programming language, the “language of the future” with many common programming errors “designed out” according to Mr. Croll. IBM is a huge Swift user, developing over 100 IBM MobileFirst apps. In December, Apple open sourced this “language of the future” and it quickly became the number one open source language on GitHub. IBM Cloud is the first cloud computing platform to support the Swift language.

CIMdata, and many other analysts, have discussed how the megatrends of social, mobile, analytics, and cloud (SMAC), along with the Internet of Things (IoT), are driving IT and business strategies. Many traditional PLM solution providers have responded with organic development and acquisitions, most notably PTC, another company “all-in,” which in their case, refers to IoT and smart, connected products. In September 2014 IBM announced their IoT business unit and have been “moving” their substantial assets around the board to meet the challenges of IoT.

One thing IBM brings to the table that the traditional PLM providers do not is a long history and significant investments in analytics and cognitive computing. In fact, several of the “thought leadership” sessions at the event focused on “cognitive IoT,” which IBM claimed is “The New Leadership Agenda.” Race teams are leveraging the IoT, cloud, and analytics to tune their performance in real-time. Several other PLM solution providers have great examples in road racing and sailing. In Las Vegas, IBM had Mr. David Hobbs, an old time racing champion, lead the discussion with Honda Racing, a team at the leading edge of IoT and analytics. Just to show how much the Formula 1 racing world has changed: in Mr. Hobbs’ era in the 1950s, pit stops averaged 65 seconds, and today they are less than 2 seconds. Some of those 65 seconds were dedicated to “analytics,” which consisted of Mr. Hobbs discussing what he experienced on the track and discussing strategy options with his team. Today, real-time analytics are fed to the cockpit, and the pit crew knows exactly what needs to be crammed into those 2 seconds besides changing all four tires.

IBM has made a major commitment to Watson, which proved its mettle on Jeopardy. They have even taken the unusual step (for IBM) of creating the global headquarters for the Watson IoT unit outside of the US in Munich. IBM Fellow Mr. John Cohn, Ph.D. focuses on IoT and provided some insight into Watson’s talents. There are currently 32 Watson APIs or

² <https://developer.apple.com/xcode/>

services,³ grouped to support language, speech, vision, and data insights. According to IBM this number will grow to 50 by the end of 2016. Their 500+ Watson ecosystem partners help power this cognitive vision. IBM Bluemix makes it easy to leverage these services for cloud and mobile applications. IBM Maximo and Tririga use Bluemix to apply Watson's skills to predictive maintenance and other services applications, and they employ the cloud and mobile to deliver knowledge at the point of work. While IBM may be a competitor to many companies in what CIMdata includes in the services lifecycle management (SLM) segment, many of these firms could leverage IBM's IoT and Bluemix platforms to bring innovative mobile solutions to market.

IBM InterConnect 2016 was a massive event that would require a team of analysts to cover well. (In fact over 115 analysts from many firms were in attendance doing just that, along with untold journalists from all over the world.) By combing the Pulse, Innovate, and Impact events, IBM brings together many of their business units, with the common focus squarely on cloud and mobile. Their strengths are considerable, and their emphasis on standards and openness can help create a bigger pie for those in their ecosystem. One thing IBM lost by creating one large event, from the perspective of PLM, is a focus on their strengths in applications lifecycle management (ALM), requirements management, and systems engineering. (Oracle also has this issue with the 60,000+ attendees at OpenWorld, but to be fair, IBM is addressing this issue by holding smaller regional events focused on these topics; CIMdata attended one in Cambridge, MA last fall.) Time only allowed for attending a few sessions on these important topics in this era of smart, connected products. In meetings with IBM executives, it was clear that many cloud and mobile success stories rely on these hidden PLM-related strengths but they are not as evident at InterConnect with its cloud/mobile focused messaging. Cognition and cognitive IoT were also front and center, powering cloud and mobile solutions. In some sense, IoT relies on levels of cognition in devices, systems of systems, and the enterprise. Transformative solutions necessitate rethinking ones business, and IBM's end-to-end IT expertise and offerings can play a big part in achieving that end. The partnerships and organizational changes they announced during this years event will help. IBM is also working hard to simplify relationships, licensing, and pricing to be more attractive to a wider range of innovative businesses. InterConnect 2016 provided some great examples, and IBM is only getting started.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website at <http://www.CIMdata.com> or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.

³ <http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/services-catalog.html>