Powering Value Networks with SAP

CIMdata Commentary

Key takeaways:

- *To be successful in today's global economy requires more than just supply chains; it demands value chains that have the geographic reach and robustness to meet ever-changing market demands*
- *SAP has a strategic focus on enabling product and demand networks that leverages their extended enterprise strengths and emerging capabilities including support for front-end innovation*
- *Moving to S/4HANA as their new business platform illustrates the platformization trend well documented by CIMdata, and provides new opportunities for user experience (UX) enhancement and new use cases*
- *Engineering Control Center (ECTR), the new authoring hub for SAP PLM, will eventually support integrating authoring tools well beyond MCAD*

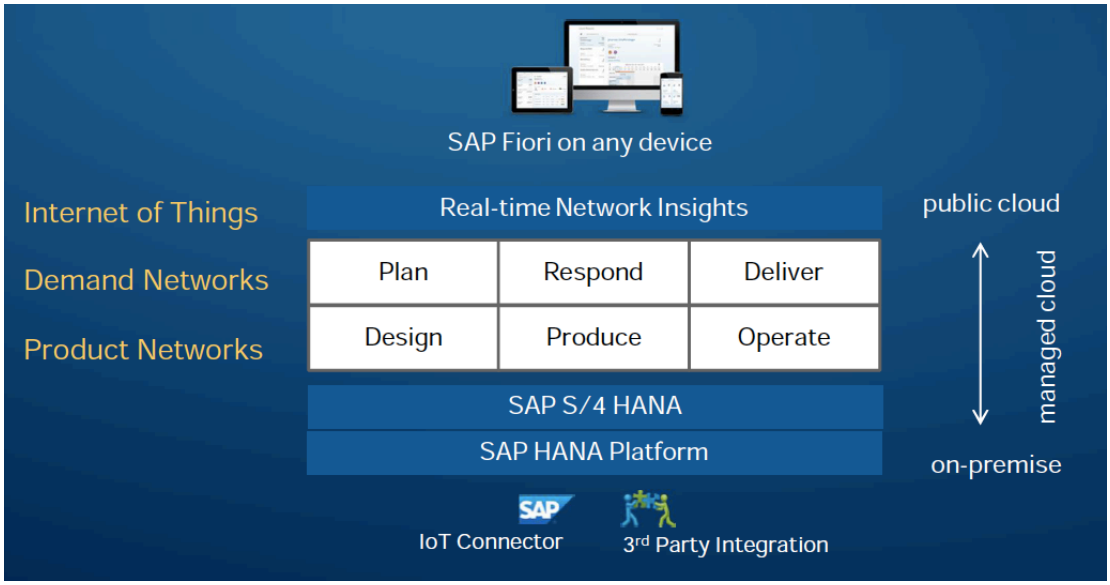
SAP recently brought together customers, partners, and SAP staff at their SAP Manufacturing Industries Forum on June 24-25, 2015 in Lombard, Illinois just outside of Chicago. The 500+ attendees represented a wide range of customers using SAP to support different aspects of their value chain. The multi-track agenda included sessions by SAP executives, leading customers, and the software and service provider sponsors of the event.

Mr. Martin Mrugal, Chief Innovation Officer and Head of Customer Experience at SAP, capsuled the evolution of SAP and how HANA and S/4HANA are the next step. According to Mr. Mrugal, after introducing their three-tier architecture the company looked ahead and saw the rising importance of cloud, big data/analytics, mobility, and social. He stated that the ability to leverage networks, and achieve the multiplicative power of network effects, is key to success in the evolving global economy. Mr. Mrugal claimed that more and more companies are adopting a digital strategy framework, as discussed in the Harvard Business Review,[1] which almost requires adopting new business practices enabled by more advanced technology. What could these new digital businesses do with real-time analysis of their operations and accurate projections of benefits from proposed actions? Supporting this real-time analysis is the promise of HANA, SAP's in-memory platform first introduced in 2010. SAP's current flagship product, the SAP Business Suite, has been available running on HANA for two years.

Earlier this year, SAP announced S/4HANA, their next generation business platform. Over a number of release cycles, SAP will redesign and build the key elements of the SAP Business Suite to leverage the power of HANA. However it is not yet clear how many annual release cycles it will take to replicate ECC 6 and the applications SAP currently offers. One slide admitted that the full ERP, CRM, SRM, SCM, and PLM capabilities are in a "planned availability" status. It is also not clear just how much of the current set of offerings will be re-implemented. This re-do will allow SAP to clean out old logic and data duplication required to provide reasonable performance when running on relational databases. It will also enable new capabilities. When combined with the SAP Fiori user experience (UX), this new business platform offers many new possibilities. Fiori supports a common UX across platforms, leveraging the strong mobile technology SAP added with its Sybase acquisition. Mr. Mrugal

[1] https://hbr.org/2015/02/design-a-digital-strategy-that-works.

claimed that 1,800 independent software vendors (ISVs) are currently writing applications on HANA. The SAP solution strategy is summarized in the figure below.



SAP Solution Strategy

Mr. Paul Wellman, the CIO of Tennant, discussed "Reimagining Business with IoT & Big Data Insights." Tennant is a global cleaning solutions business that has big plans for IoT. (Think those industrial machines cleaning floors in offices and airports.) They manufacture and sell the same machines around the world, running their entire business on one instance of SAP. Tennant is starting their servitization journey, looking to turn those machine sales into service level agreements, delivering efficient services as part of a complete solution including the machines, leading to increased demand for parts and upgrades as well. To help do it, they designed ruggedized communications and processing modules to connect their machines via the Internet. They chose cellular technology over wireless (which is too spotty at present in many big structures; based on their research a 3G modem has a 96% chance of a good connection at least once a week), and identified what kind of data they needed to collect, share, and process. Their industrial machines have about 50 data control points, and their commercial machines have about 30. Tennant is working with SAP and a partner to build and deploy their initial solution, which is being designed to leverage this product usage data across the lifecycle.

In a later talk, Mr. Michael Lynch, SAP's Global Co-Lead for IoT, claimed that SAP has "the most comprehensive IoT portfolio to drive business value." Certainly, SAP controls the back-end of many businesses, something that a competitor like IBM can only claim through their integration abilities and experiences. He spoke of the SAP HANA Cloud Platform for IoT, offering a "logical warehouse" across SAP HANA, SAP IQ (another piece of technology from the Sybase acquisition), and Hadoop. According to Mr. Lynch, SAP is also playing a role in the connected car with leading automotive OEMs, and in several Connected City projects including one in Nanjing, China.

On day two, Mr. Hans Thalbauer, Senior Vice President, Extended Supply Chain at SAP, focused on "Product & Demand Networks," where customer centricity and personalized solutions that leverage IoT are core elements in today's business strategies. According to Mr. Thalbauer, leading companies need to transform yesterday's supply chain and logistics functions into responsive global demand networks. At the same time, product networks must

evolve to create solutions, not products, and produce these offerings on demand, down to the individual level. Networked enterprises will leverage IoT to get real-time network insights and to drive optimal reactions to that data.

While not the focus of this event, several recent development efforts and product introductions are essential to the SAP business platform evolution to support product innovation. In 2014 SAP introduced SAP Innovation Management to enable the ideation process including idea generation, management and evolution, team creation and management, and other front-end innovation functions. As discussed by CIMdata in recent events and publications enterprise innovation management is a lynchpin for enterprise innovation across all relevant business functions including product development. In this case, SAP has the potential to connect the executive suite to product development as SAP Innovation Management integrates with SAP Portfolio and Project Management; their successful PPM offering that also integrates well with SAP PLM. CIMdata looks forward to hearing more about the lead users for this important offering.

The other big release by SAP this year was the Engineering Control Center (ECTR), their new standard technology and UX for authoring tool integrations. This solution evolved from some earlier technology developed by DSC, a member of the SAP PLM Alliance, a group of companies that mainly offer mechanical CAD (MCAD) integrations for SAP.[2] ECTR is a major step up from the previous CAD Desktop for MCAD users and will be the basis for many upcoming authoring tool integrations from SAP. For example, CIDEON Software offers an integration based on ECTR with EPLAN, a leading electronic design automation (EDA) solution. Integrations with other leading EDA solutions will soon follow. SAP is also looking at how best to deal with simulation and analysis tools, how to manage software as part of the product structure, and how to enable systems engineering. Some of these integrations will also use the ECTR approach.

These moves by SAP are not surprising. Industrial companies need to develop smart, connected products in many industrial markets. In response, all PLM solution and service providers have to evolve to support richer, more comprehensive product development capabilities. Recent acquisitions are helping SAP do just that. BusinessObjects brought business intelligence capabilities, exposed to the SAP PLM user through the Business Context Viewer. The Right Hemisphere acquisition is at the core of SAP Visual Enterprise, which added 3D and 3D context for users. Even their messaging and offerings around “Idea to Performance” have a place in this new value network world.

In conclusion, the SAP Manufacturing Industries Forum provides a valuable opportunity for SAP customers from many industries to learn about how to power their value networks with SAP solutions. The move to HANA-based offerings will help SAP deliver real-time insights to their customers to help them make more informed decisions. Their recent moves in innovation management and the ECTR can make the innovation and development process more seamless from idea to product and to enable the service-based experiences that many companies seek to deliver to anyone, anywhere, anytime. CIMdata believes that taking this systems view to strategy, innovation, and value networks is essential to market success and we are glad to see SAP working hard to make it a reality.

[2] This was discussed in the CIMdata commentary from the 2013 SAP Insider event: http://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/132-sapinsider-2013-leading-the-way-in-in-memory-applications-commentary

About CIMdata

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