

PLM Industry Summary

Sara Vos, Editor

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CIMdata News

Aerospace & Defense PLM Action Group Publishes 3rd Release of Multiple-view Bill of Materials Position Paper

14 February 2019

Representatives from the eleven-member companies of the Aerospace & Defense PLM Action Group (AD PAG) have published their expanded position on the topic of multiple-view bill of materials (multiview BOM). This 3rd release is a significant enrichment of previous work by the AD PAG cross-companies project team, which has been operating for two years. In earlier releases, the authors explored the dichotomy between single BOM and multi-view BOM approaches, analyzed current state "pain points," and, within this context, proposed an architectural solution with supporting architectural principles. In this release, the authors have added substantial new content, including preliminary requirements; new sections on Effectivity and Domain-specific Accountability and BOM Restructuring use case classifications. This release also has two new appendices: an extensive Glossary, containing BOM-related terminology as harmonized across the member companies and relevant industry sources, and Concept Definition and Use Cases, containing walkthrough examples and a list of use cases to illustrate BOM Restructuring and Accountability requirements—suitable reading for those with deep expertise in the subject area.

Javier Reinés, Configuration Management Expert at Airbus, who is the team's project manager, stated, "The multi-view BOM team has done an excellent job during the last two years, identifying common issues, requirements, and expectations about multi-view BOM management in current PLM tools. This is especially remarkable when considering existing differences in each company's business and their PLM landscape. I hope this Position Paper will help PLM solution providers to improve multi-view BOM capabilities in near term offerings."

Aleksander Przybylo, Process Engineer at The Boeing Company, a lead author of the position paper, explained that, "Boeing is in the middle of revamping its processes and tools as part of the Second Century Enterprise Systems (2CES) initiative. The digital twin and digital thread rely on interconnected data that stays consistent as individual product views evolve. This makes the multi-view BOM approach and the accountability methods documented in the multi-view BOM position paper a key enabler in that journey." Mr. Przybylo's colleague, Bruce Hiebert, Associate Technical Fellow at The Boeing Company, a senior expert on the project team, offered his perspective that, "The A&D PLM Action Group marks the first time major players in the Aerospace and Defense industry have openly shared

their pain points and formed a single front for delivering requirements to PLM vendors in the BOM accountability arena."

One year into the project execution, AD PAG leadership approved adding tier-1 suppliers to the project team. Five major suppliers accepted their invitation and have been very active and valued contributors. Luc Aebi, Configuration Management & PLM Expert with Latécoère offered his perspective, "In the frame of 'Extended Enterprise', as a supplier Latécoère has to face two challenges, a large amount and diversity of incoming data from our different customers and the complexity of multi-view BOM accountability. Working with the AD PAG allows us to raise our pain points to OEMs, to share the best practices, and identify common issues in order to improve and harmonize digital tools."

Since its founding in 2014, the AD PAG, which is administered by CIMdata, has sponsored research and jointly staffed projects on a diverse set of prioritized industry and technology topics, including Model-Based Definition; Multiple-view Bill of Materials; PLM Technology Obsolescence Management; Global Collaboration; and Model-Based Systems Engineering. As an outcome of these investments, the Group has released a series of direction statements and position papers that are freely available for downloading from its website at www.ad-pag.com. Making these materials available is consistent with the Group's mission to engage proactively within the PLM ecosystem and advocate for common direction and positions within the aerospace and defense industry on PLM-related topics of importance to the members.

For more information, please contact CIMdata at info@cimdata.com.

About CIMdata

CIMdata, a leading 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) solutions. Since its founding in 1983, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM enabling technologies.

CIMdata works with both industrial organizations and suppliers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific. To learn more about CIMdata's services, visit our website at www.CIMdata.com, follow us on Twitter: http://twitter.com/CIMdataPLMNews, 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.

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CIMdata Releases White Paper about the Impact of PLM Technologies on Service

12 February 2019

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces

the release of a white paper focused on the impact of new and evolving PLM technologies on service lifecycle management.

Product service operations and the overall approach to service lifecycle management are undergoing significant changes. Historically, service has mostly been reactive, primarily repairing products when there is a problem or failure or providing regular maintenance operations. Products were standalone entities and service personnel used standard repair kits and static, often dated or generic paper-based, technical service manuals. Today, new technologies are enabling companies to significant change how they are delivering service and are creating new, innovative, and profitable service business models.

Companies are leveraging the advent of smart, connected products, the Internet of Things, big data and analytics, and augmented reality solutions, supported by digital twins and threads to capture, manage and utilize more information about in-service use and status of products and systems. Products, and entire systems, are now being monitored and managed remotely and, in some cases, autonomously. Service is moving from its historical reactive paradigm to being predictive and proactive. These new capabilities are improving how service is being delivered but more importantly, they are:

- Helping service organizations better meet customer needs and expectations
- Reducing the cost and time for service
- Helping customers get more use from their product investments

These new technologies and the information being created and visualized are enabling manufacturing companies to create new service business models in which service rather than the product is the focus. No longer does the customer have to pay for a product, they can pay for an outcome—power, cooling, a hole in the ground, etc.—instead of buying a product and then having to perform some work to get the desired result.

Technology is changing the face of service, improving the customer use of a product or system (helping satisfaction and brand loyalty), and enabling manufacturers to deliver new capabilities in a more profitable manner.

The CIMdata white paper on The Impact of Technology on Service is available on https://www.cimdata.com/en/resources/complimentary-reports-research/white-papers.

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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.

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Acquisitions

Bentley Systems Announces Acquisition of SignCAD Systems

11 February 2019

Bentley Systems, Incorporated announced the acquisition of leading provider of software for traffic sign design and manufacturing, SignCAD Systems, based in Minneapolis, Minnesota. SignCAD provides sign design solutions to 43 state departments of transportation (DOTs) in the U.S., as well as many cities, counties, engineering firms, and manufacturers. SignCAD's sign design capabilities complement Bentley's OpenRoads civil design software offerings for roadway projects.

SignCAD's offerings for traffic signs include sign design, sign manufacturing, and asset management software solutions. The acquisition builds upon Bentley's ability to provide the most comprehensive set of solutions for design and construction of transportation assets. It will also allow Bentley to better serve roadway asset owners for the purposes of maintaining safer construction work zones while sustaining roadway performance criteria for the public.

Dustin Parkman, vice president, civil infrastructure design engineering for Bentley Systems, said, "For the past five years, we have been working diligently on increasing the level of detail that can be modeled and simulated within the OpenRoads environment. With the addition of SignCAD, 3D modeling of signs within the context of our roadway designs allows us to provide a higher fidelity representation of roadway assets, yielding benefits beyond design and construction workflows.

"In this new era of autonomous vehicles, the digital representation of roadway networks is quickly becoming just as vital as the physical roadway," Parkman continued. "Faded or obscured signs and unusual intersections are commonplace throughout most of world's roadway networks, presenting new and interesting challenges for roadway owners—challenges that often cannot be met by physical upgrades alone. To bridge that gap, we need a digital representation of roadway assets often referred to as a 'digital twin.' Roadway signs provide important information about the road network that can be leveraged far beyond conventional line of site machine learning methods, to provide additional depth of information and calibration. With the addition of SignCAD, Bentley's digital twin for roadway assets will provide this valuable data to roadway asset owners."

Judd Roby, president of SignCAD, said, "We are extremely excited about adding SignCAD into the realm of 3D modeling with OpenRoads. This acquisition supports our goals of continuing to meet the transportation owner/operators' needs across the design, build, operate, and maintain lifecycle."

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Dassault Systèmes Takes Next Step to Boost the Digital Transformation of the Smart Product Electrical Design Experience

11 February 2019

Dassault Systèmes announced today that it has signed a definitive agreement to acquire the elecworks electrical and automation design software product line from Trace Software International, a developer of software solutions and services dedicated to industrial engineering. Through the deal, a team of 21 skilled professionals will join Dassault Systèmes. The acquisition of the elecworks assets will streamline and boost Dassault Systèmes' development of an integrated mechatronics solution on the 3DEXPERIENCE platform to help its SOLIDWORKS customers address electrical design challenges in the development of smart products.

Through an asset transfer deal, Dassault Systèmes will acquire 100 percent of the Trace Software electrical design and automation product line and intellectual property. An electrost team of 21 software developers, technical support engineers and quality assurance engineers dedicated to electrical schematics will join Dassault Systèmes. Electrost software provides schematic design, electrical control panel design, and small wiring-cabling-harnessing design capabilities that form the basis of Dassault Systèmes' SOLIDWORKS Electrical applications, which enable mechanical and electrical teams to improve collaboration and deliver more accurate designs. Included in the asset purchase is a library of over half a million electrical symbols and manufacturer data for commonly used electrical components during design.

"As the demand for smart products grows, Dassault Systèmes is ready to serve the needs of SOLIDWORKS users by integrating methods that will streamline mechatronics design and help them leverage the benefits of the 3DEXPERIENCE platform," said Gian Paolo Bassi, CEO, SOLIDWORKS, Dassault Systèmes. "The elecworks development team brings skills that have already contributed to the success of SOLIDWORKS Electrical applications. We welcome them as we gain the opportunity through our acquisition of the elecworks assets to better address an estimated \$400 million market of small and midsized businesses that are innovating in today's Industry Renaissance."

The Internet of Experiences – the smart and autonomous experiences that are digitally connecting products, nature and life in the physical world – is fed by the expanding market of smart and connected devices that are estimated to number 30 billion by 2020. Companies in high-tech, industrial equipment, energy and other industries must integrate new sensors, controls and capabilities into their smart products to successfully deliver these experiences, yet a disjointed mechanical and electrical design process can complicate product development.

With elecworks assets, Dassault Systèmes can streamline the development of SOLIDWORKS Electrical applications and new electrical offerings on the 3DEXPERIENCE platform by combining best practices, electrical design technology and SOLIDWORKS mechanical applications under common research and development management. Thousands of SOLIDWORKS users seeking to adopt affordable electrical design applications for the digital transformation of their electrical design process will thus benefit from electrical drawing and documentation development, database-driven design, improved schematic-to-3D workflows, and design change management.

Trace Software International has been a SOLIDWORKS applications partner since 1997, providing electrical system design software to SOLIDWORKS customers. In 2012, Dassault Systèmes created a strategic partnership with them to integrate and sell elecworks technology under the name of SOLIDWORKS Electrical applications.

The asset transfer transaction is expected to close in March 2019.

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Company News

ACERBIS Achieves Real-Time Visibility with Aptos PLM

13 February 2019

Aptos, Inc. today announced that ACERBIS, the historic Italian brand of motorbike components and sportswear, has successfully deployed Aptos PLM to manage the design and collection development process of its multi-sport division.

Within weeks of the solution's deployment, ACERBIS is realizing significant benefits to its business, including optimized workflows, centralized data and improved traceability.

Since 1973, ACERBIS has been involved in the world of sports. The experience and knowledge gained over the years has led to the creation of a division dedicated to sportswear, and specialized in the design, manufacturing, and marketing of technical clothing and accessories for football, rugby, basketball and volleyball, in addition to custom sportswear and technical apparel for professional teams. Today, ACERBIS is the technical sponsor of many Italian and European teams and sells its products in five continents.

"Our assortment is extremely differentiated. We serve several sport segments, including designing and producing teamwear and custom-made clothing. The commitment to continuous research and innovation has allowed us to grow both in Italy and abroad," explains Francesco Trentini, IT Manager at ACERBIS. "In this highly dynamic and fast-growing sportswear segment, Aptos PLM is supporting us at each step of product development from centralizing technical drawings, colors, size specs, bills of material, as well as in managing samples, production technical worksheets and supply costs."

"After just a few weeks following go-live of the Aptos solution, we are seeing benefits in terms of immediate and efficient data exchange, rationalization of workflows, and improved communication among all departments involved in developing our collections," notes Trentini.

Aptos PLM is in use by all designers, line managers and buyers across ACERBIS' sportswear division.

"Aptos PLM seamlessly integrates with Adobe Illustrator, offering our designers the ability to work within an environment which is familiar to them. Sketches, technical drawings and all information produced by our creative team are immediately accessible to line managers, who have gained tighter and continuous visibility over product development. Also, tech-packs can now be shared with selected suppliers, with clear visibility on the latest updates and accurate management of versioning. This translates into more precise interactions, greater traceability and suppliers' increased responsiveness," concludes Trentini.

"We are proud to be partnering with a respected brand such as ACERBIS and of the results they have achieved thus far," comments Noel Goggin, Aptos CEO and culture leader. "Product development involves hundreds if not thousands of interactions. Aptos PLM is a best fit for companies that are looking to automate and streamline critical processes for everyone involved in creating and managing collections."

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ANSYS Recognized as a Leader in Corporate Sustainability

6 February 2019

Corporate Knights, a media and research company dedicated to promoting corporate sustainability, named ANSYS to its 2019 global 100 Most Sustainable Corporations in the World index (Global 100).

Corporate Knights determined the Global 100 following a rigorous analysis of 7,500 publicly listed companies spanning every industry with US\$1 billion or more in revenues. The organization analyzed a suite of 21 key performance indicators covering resource management, employee management, clean revenue and supplier performance.

Corporate Knights also measured Global 100 companies against companies tracked within the MSCI All Country World Index, which analyzes global stock market activity. The comparison revealed that sustainability-focused companies generally delivered more revenue for investors and had better corporate longevity.

"ANSYS simulation enables engineers around the globe to create a more sustainable world. We strive to be a corporate leader in sustainability and we are honored to be included within the Global 100 index," said Maria Shields, senior vice president and CFO at ANSYS. "Placement on this list reflects ANSYS' ongoing focus on the environmental, social, and governance issues arising in our culture and operations at every level."

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Centric Software Brings Fashion & Retail PLM Innovations to South Korea

12 February 2019

Centric Software is pleased to announce that it is expanding its presence to Seoul, Korea, bringing market-leading Product Lifecycle Management (PLM) solutions to local fashion, retail and consumer goods companies.

Now a must-have for brands, retailers, original design manufacturers (ODMs) and original equipment manufacturers (OEMs), PLM is the digital backbone of product design and development from concept to retail. PLM technology drives growth in the competitive global marketplace, streamlines operations and quickly gets innovative products to market.

The expansion reinforces Centric Software's dramatic growth in Asia. The company opened offices in Shanghai in 2014, Tokyo in 2016 and Hong Kong in 2017. Centric boasts 54 customers in the region and intends to further develop its position as the PLM market leader in Asia.

"Centric Software will now be able to support South Korean fashion, retail and consumer goods companies with intuitive, easy to use, mobile and cloud-based PLM software," says Fabrice Canonge, Senior Vice President of Global Sales at Centric Software. "Centric PLM empowers companies to manage all product data in one digital solution with a 'single version of the truth' approach, meaning fewer errors, faster time to market, enhanced collaboration and better margins. It's an essential tool for

companies to keep up with trends in global markets and the changing expectations of consumers."

Centric Software will celebrate with a launch event in Seoul on March 13.

Attendees will enjoy live demos of PLM solutions that drive innovation and growth at over 850 brands across the world, including Centric's cloud-based PLM platform, over 15 mobile apps for PLM and Centric Visual Innovation Platform (CVIP) for touchscreen devices.

"We are very proud to announce our expansion in South Korea," says Chris Groves, President and CEO of Centric Software. "Since we entered the Asian market in 2014, we have gone from strength to strength, gaining market leadership in the region. The team in Seoul is looking forward to bringing Centric's modern and mobile PLM solutions to retailers, brands and manufacturers in South Korea."

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Fetch.AI joins the Trusted IoT Alliance to accelerate deployment of autonomous agents for the IoT 8 February 2019

Fetch.AI has joined the Trusted IoT Alliance (TIoTA) to collaborate with major corporates as well as AI and blockchain start-ups on distributed ledger enabled IoT projects. The TIoTA counts Bosch, Telekom Innovation Laboratories, Cisco and Gemalto amongst its corporate members offering facilitated engagement opportunities for innovative distributed ledger start-ups.

Softbank recently forecast the IoT will be made up of a trillion connected devices creating over \$11 trillion in value by 2025. As IoT devices begin to generate vast amounts of data, that data will increasingly be securely distributed using blockchain and finally consumed by AI technologies that deliver improved solutions.

With its ability to support autonomous agents, and to share predictions based on data amongst distributed parties, Fetch.AI is ideally placed to ensure an intelligent IoT. Fetch.AI's unique, highly scalable infrastructure provides the search and discovery function and autonomous value exchange necessary for digital agents to deliver an intelligent IoT.

Fetch.AI agents will represent networked real world assets to ensure these devices can autonomously maximise their own usage and value. Similarly, for IoT sensors the Fetch.AI network means that data streams can be monetised, bringing far more of the world's data into play, from which all participants of the network benefit.

Fetch.AI will work with the TIoTA on its cross-industry projects to build the future economy by delivering a secure and scalable IoT ecosystem. Fetch.AI's developers will be participating in the upcoming 'Trusted IoT Challenge' and 'MOBI Grand Challenge', designing autonomous agents to enable autonomous charging of electric cars.

Zaki Manian, Executive Director at the Trusted IoT Alliance commented: "Our alliance brings together the key players to drive forward a secure, interoperable and standardised infrastructure for the IoT. We wholeheartedly welcome innovative start-ups like Fetch.AI. We're particularly excited about the role autonomous agents will play, they have the potential to 'bring the IoT to life' offering entirely new ways to create value for companies and consumers. Fetch offers the world what it's been missing – an intelligent infrastructure to make this possible."

Humayun Sheikh, CEO at Fetch.AI added: "The Trusted IoT Alliance plays an important role in fostering collaboration between innovators that are building Web 3.0 and the major corporations that are so crucial for bringing these new models into production." He continued: "Our scalable Smart Ledger offers the ideal infrastructure for high frequency IoT use cases where agents can automate key aspects of mobility, supply-chains, energy and healthcare."

The news is one of several recent major steps forward for Fetch.AI. The latest deployment of its technology is in collaboration with Clustermarket, the online sharing platform for scientific equipment, and GE Healthcare Life Sciences. Autonomous agents running on the Fetch.AI decentralised testnetwork are helping both users and laboratories improve the utilisation of specialised equipment through personalised predictions.

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Five Tech Data Executives Recognized as 2019 CRN Channel Chiefs

11 February 2019

With a transforming IT landscape that demands quick adaptation, today's top channel executives need to be able to lead adaptively as well. Tech Data is pleased to announce that CRN®, a brand of The Channel Company, has named five Tech Data executives to its prestigious list of 2019 Channel Chiefs. These top IT channel leaders continually strive to drive the channel agenda and deliver growth and revenue through their strong channel partnerships.

"Our talented executives exemplify the dedication, passion and focus that Tech Data brings to its customers every day," said Joe Quaglia, president, Americas at Tech Data. "Our Channel Chiefs are continually pushing the envelope to drive our business forward and prepare our customers for the digital trends of the future."

Chosen for their leadership, influence and ability to create strong relationships and channel programs, this year's list of Tech Data Channel Chiefs includes:

- Marty Bauerlein, senior vice president, Sales, North America Bauerlein oversees the strategic
 direction of the company's Commercial, Retail, Enterprise, Government, Specialist Solutions
 and National Accounts teams, as well as the Canada sales team. Bauerlein provides guidance and
 insights regarding improving the selling motion, developing cross and upsell opportunities to
 deliver profitable growth for the company and an unmatched customer experience for channel
 partners.
- Kevin Kennedy, senior vice president, Advanced Solutions Kennedy's team is responsible for the strategy, support and sales execution for Advanced Solutions at Tech Data. Kennedy is also responsible for optimizing sales performance, helping customers to accelerate the pace of nextgeneration technology adoption, and for expanding sales capacity across Tech Data's end-to-end portfolio.
- Stacy Nethercoat, vice president, Cloud Solutions, Americas Nethercoat oversees all product
 marketing programs and initiatives developed to support the company's cloud business in the
 Americas. Specifically, she is responsible for public, hybrid and private cloud strategy,
 execution, customer engagement, new vendor incubation, solutions development and services for

the Americas region.

- John O'Shea, senior vice president, Global Lifecycle Management Services O'Shea oversees the strategic direction of Tech Data's services business globally. His team is responsible for delivering a suite of customer and product lifecycle management services that enable OEMs and solution providers to release capital from their businesses that helps them accelerate transformation.
- Linda Rendleman, senior vice president, Endpoint Solutions Rendleman leads the team responsible for developing, building and expanding multi-vendor endpoint solutions for partners that are easily consumable, expand the sales opportunity with the end customer, and increase the opportunity to attach services. Her team's strategy is centered around three key trends driving growth in the endpoint market: workspace transformation, anytime/anywhere digital workforce, and next-generation collaboration solutions.

Each of these 2019 Channel Chiefs has demonstrated exceptional leadership, vision and commitment to their channel partner programs. Channel Chief honorees are selected by CRN's editorial staff as a result of their professional achievements, standing in the industry, dedication to the channel partner community, and strategies for driving future growth and innovation.

"The individuals on CRN's 2019 Channel Chiefs list deserve special recognition for their contribution and support in the development of robust partner programs, innovative business strategies, and significant influence to the overall health of the IT channel," said Bob Skelley, CEO of The Channel Company. "We applaud each Channel Chief's remarkable record of accomplishments and look forward to following their continued success."

The 2019 CRN Channel Chiefs list, including the 50 Most Influential Channel Chiefs, is featured online at www.crn.com/channelchiefs and will appear in the February 2019 issue of CRN.

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Inceptra achieves Platinum Status in Dassault Systèmes' Business Partner Program

8 February 2019

Inceptra LLC has achieved Platinum status in Dassault Systèmes' Value Solutions Business Partner program. Earning the highest tier in the program, Platinum Business Partners are best-in-class performers in the Dassault Systèmes ecosystem and highly engaged in and aligned with Dassault Systèmes' 3DEXPERIENCE business.

Dassault Systèmes business partners are recognized professionals selected for their product and industry expertise to resell Dassault Systèmes solutions while complementing the offer with value-added services such as system integration, customization, consulting, implementation and training. Once a year, business partners are evaluated and granted one of the four available tiers – Bronze, Silver, Gold or Platinum – based on sales efficiency and performance, capacity to develop and certify their technical and sales skills, and strategic alignment with Dassault Systèmes.

"With Inceptra, customers can feel confident that they are teaming up with a Dassault Systèmes Business Partner that reliably delivers the highest value PLM solutions," said Jim Ryan, President and CEO, Inceptra, LLC. He continued, "Platinum Partner status acknowledges Inceptra's broad Dassault

Systèmes PLM solutions and 3DEXPERIENCE Platform knowledge and expertise, which allows us to guide engineering and manufacturing companies to the best fit solution to improve their competitiveness, productivity and profitability. It also affirms Inceptra's abilities to maximize the value of 3DEXPERIENCE Platform solutions, driving innovation and enabling business transformation through world class consulting and support services".

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NexusTek Elevates Bob Deschamps to Executive Vice Operations of Operations and Randy Nieves to Chief Technology Officer and Senior Vice President of Product Management

13 February 2019

Nexus Tek announced today that it has promoted two of its most tenured senior leaders: Bob Deschamps to Executive Vice President (EVP) of Operations and Randy Nieves to Chief Technology Officer (CTO) and Senior Vice President (SVP) of Product Management.

"In addition to the veritable treasure trove of knowledge and IT services expertise accrued over decades, Randy Nieves and Bob Deschamps know this company from top to bottom," said Mike Jenner, CEO, NexusTek, "and NexusTek takes pride in being able to promote from within. An intimate familiarity is not only one of the many intangibles both Bob and Randy bring to our Executive Leadership Team, but also a core element in NexusTek's ability to deliver better services to businesses nationwide."

As EVP of Operations, Deschamps directs NexusTek's cloud and premise-based services delivery force, comprised of more than 200 engineers, technicians and client service representatives.

"For businesses that want to leverage cloud services but don't have the in-house personnel to manage a migration, NexusTek Cloud Services extend the flexibility and control businesses need to be agile, and can address customers' unique cyber security, business continuity, compliance and auditing requirements in public cloud, managed private cloud, hybrid, multi-cloud or on-premise environments," said Bob Deschamps. "Many services are built with a one-size-fits-all mentality and leave little room for customization. Conversely, NexusTek Cloud Services offer a scalable, resilient and flexible environment that can meet the needs of organizations of all sizes – and in all markets."

Deschamps carries more than 30 years of top-tier management experience in operations, sales and finance for globally-recognized brands including General Motors, Arrow Electronics and Microsoft.

As CTO and SVP for Product Management, Nieves is now tasked with developing, enhancing and deploying NexusTek products, services and solutions, as well as charting the company's strategic roadmap for technology, enablement and training. In directing product lifecycle management process from end to end, Nieves and his team collaborate closely with partners to create innovative, disruptive and profitable offerings tailored for current and future market conditions.

"I am thrilled to join the NexusTek Executive Leadership team and to be entrusted with architecting the roadmap for the reigning MSP of the Year," said Randy Nieves. "Over the past several years, this company has forged ahead while other service providers have faded away due to their inability to scale and retain talent. For businesses that want the competitive advantage of working with a single partner that can not only manage, but optimize their IT environments, NexusTek provides nationwide infrastructure, IT consulting expertise and an all-encompassing portfolio to solve today's problems and tomorrow's needs."

Nieves brings more than 28 years of leadership experience and a broad base of engineering, design, operational, consulting, and logistics knowledge to his new post. Throughout his almost three-decade career, Nieves has excelled in building and leading IT consulting and Network Operation Centers (NOC). In addition, he has exceptional engineering experience across a wide array of technology and operating systems including private, public and hybrid cloud environments, network and storage infrastructure, virtualization, wireless communications, firewalls, disaster recovery services, security, and point of sale systems. Nieves also holds several technical certifications including CSSA, CSSP and ITIL v3, as well as extensive experience ensuring compliance for industry regulations such as PCI, HIPAA, GDPR and ITAR.

With an all-encompassing services portfolio, national infrastructure and workforce, NexusTek offers end-to-end IT management that sets a new standard in how businesses consume managed IT services. Tenured executives like Randy Nieves and Bob Deschamps provide the expertise and leadership with which NexusTek helps customers improve business outcomes.

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TCS and the World Economic Forum Secure Commitment to Equip 17.2 Million People with Digital Skills

14 February 2019

Tata Consultancy Services, (TCS) announced significant momentum in its partnership with the World Economic Forum and its Closing the Skills Gap coalition. Launched in 2017 with the goal of re-skilling or up-skilling 10 million people in the global workforce by 2020, the initiative has secured pledges from leading international businesses to retrain 17.2 million people to date, of which 6.4 million people have already been trained.

"Our collaboration with the World Economic Forum is driving systemic change to empower people with 21st century skills to participate in new opportunities created by the Fourth Industrial Revolution," said Surya Kant, President, North America, UK and Europe, Tata Consultancy Services. "We are proud of the transformative impact of Closing the Skills Gap and encourage more businesses and countries to join this collective effort to realize the vision of a more inclusive and prosperous future for all."

Closing the Skills Gap has established global and national platforms to address critically needed skills to re-shape education and training for the future. TCS created a dedicated online platform that enabled several leading companies such as Nokia, Barclays, British Telecom, and Mercer, to make measurable commitments to skills development, share insights, and offer best practices.

"The new world of work in the Fourth Industrial Revolution is rapidly becoming a lived reality for millions of global workers and companies. The inherent opportunities for positive outcomes for workers, the economy and society are enormous, yet crucially depend on bold action from all concerned stakeholders to instigate reform in education and training systems to prepare workforces for the skills of the future," said Saadia Zahidi, Member of the World Economic Forum's Managing Board and Head of its Centre for the New Economy and Society. "The Forum's partnership with TCS on the Closing the Skills Gap project is one important step in catalyzing such action."

To complement this business-led approach, the World Economic Forum is initiating and

expanding national public-private collaboration task forces to prepare countries for the future of work. This approach has been rolled out in Argentina, India, Oman, and South Africa, and will expand to 10 economies by the end of 2020.

TCS' commitment to retrain 1.2 million people is focused on three fronts; upskilling and reskilling its current workforce, preparing today's students for 21st century careers, and empowering women, ethnic minorities and marginalized groups. To date, TCS has trained over 292,000 employees with new digital skills, who are helping to power many of its customer's digital business transformation journeys.

TCS has also pioneered education and mentoring initiatives for young people on a global scale, collectively engaging more than 1 million students to date. In the US, TCS' Ignite My Future in School program has so far enabled 5,050 educators and 300,000 students across 55 school districts to adopt a transdisciplinary approach and incorporate computational thinking into every school subject. In the UK, the IT Futures program has similarly reached 300,000 students by connecting charities, social enterprises and TCS employees to deliver retraining opportunities in schools and universities. In India, Bridge IT is now enabling critically needed primary school education and adult literacy in underserved communities across the country, and in Australia, TCS provides month-long internships to university students in Mumbai, India, adding cross-cultural business experiences and skillsets to their academic qualifications.

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The Revolution in Simulation Initiative Continues to Gain Momentum as ESTECO Joins the Growing List of Sponsors

12 February 2019

The new industry collaboration and technology alliance Revolution In Simulation ("Rev-Sim" at www.rev-sim.org), created to accelerate innovation through the democratization of engineering simulation, announces the addition of ESTECO (www.esteco.com) as a new sponsor for 2019. ESTECO's smart engineering suite brings enterprise-wide solutions for design optimization, simulation data management and process integration and automation.

ESTECO adds its name to a growing list of sponsors including: Aras, ASSESS, Comet Solutions, EASA, ESRD, Front End Analytics, Kinetic Vision, NAFEMS, PLM Alliances and VCollab. These innovative organizations are providing the expertise and funding to support the growing industry-wide movement to make engineering simulation more accessible, efficient, and reliable not just for CAE experts but also for everyone in the enterprise – what is commonly referred to as the "Democratization of Simulation".

RevSim.Org co-founder, Rich McFall comments: "Rev-Sim sponsors are critical in fueling the Democratization of Simulation movement. We are excited to have ESTECO join other market leaders who are demonstrating their revolutionary thought leadership by supporting RevSim.Org with their expertise, resources and funding that benefits industrial users of simulation technologies."

ESTECO Principal Product Manager, Matteo Nicolich, comments: "We want our technology to reach beyond the field experts and extend the benefits to a wider target of engineers. For ESTECO, democratization means enabling you to extract the best value from our technology even if you are not an optimization expert. Rev-Sim.Org is quickly gaining a reputation for the on-line resource for democratizing simulation; and we are proud to be a sponsor."

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Events News

Hexagon's New G-Code Simulation Software Wows at Southern Manufacturing

12 February 2019

CAD/CAM software products EDGECAM, VISI and RADAN have exhibited in the UK for the first time since becoming part of the Hexagon Manufacturing Intelligence Production Software business.

They were also joined for the first time on the stand at the Southern Manufacturing trade fair by NCSIMUL, a G-code simulation software from recent acquisition SPRING Technologies.

Gareth Henwood, Area Sales Manager for the Production Software business, says visitors to the stand were excited by, and impressed with, on-screen demonstrations of NCSIMUL, showing its versatility and ease of use. "Although there's a powerful simulator in EDGECAM, it simulates from the file...whereas NCSIMUL reads the data that's actually going into the machine, so it gives manufacturers full confidence that when they start to cut metal there won't be any collisions or gouging."

Described as a high-end CNC simulation software, NCSIMUL manages the complete machining process from the NC program to the machined part.

Visitors to the Hexagon stand saw how its capabilities allow users to fully master the shop floor, and include automatic G-code reprogramming and G-code simulation. Other benefits that complete the platform and enhance production include DNC program management, real-time machine monitoring and publishing technical content.

As well as NCSIMUL, three of the Production Software business's CAD/CAM solutions were on display, along with the WORKPLAN ERP system, and a section of the stand was dedicated to Hexagon's scanning devices.

Demonstrations of the latest release of EDGECAM included its Additive Machining module, supporting the Direct Energy Deposition method, offering a specific manufacturing cycle which accurately guides a laser as it deposits material to form a shape. After that, the shape is machined using EDGECAM's milling cycles to create the final component.

Visitors also saw how RADAN 2019 R1 focuses on doing more with fewer clicks; and a range of new and enhanced CAD/CAM functions in VISI, providing a boost for reverse engineering for the mould and die market.

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OpenBOM Unveils New Design to Purchase Solution at SOLIDWORKS World 2019

11 February 2019

OpenBOM has released new functions to deliver end-to-end design to purchasing process for engineering teams and medium size manufacturing companies. This functionality gives OpenBOM subscribers tools to plan Order BOMs, manage vendors and create purchase orders as a single integrated process fully integrated with design and engineering Bill of Materials process.

OpenBOM's unique collaborative environment allows customers to create Bill of Materials directly from any modern CAD environment and integrate with the purchasing process in the following 4 steps:

- Manage catalogs of standard parts and engineering components
- Create and update Bill of Materials fully synchronized with CAD systems
- Create Order BOMs for specific production batch orders
- Manage vendor lists and generate purchase orders for vendors

The OpenBOM modern cloud-based environment allows all participants from design, manufacturing, and procurement to stay connected and synchronized in global manufacturing eco-systems.

"BOMs generated by sophisticated CAD systems require others to have the same sophisticated CAD systems in order to access that information. This is not happening and your BOM data is held hostage. OpenBOM is different. It is a cloud based system that I can invite anyone into to view and edit. This means that I can share my BOMs with others and they can review and/or edit this single source of truth"- says Michael White, Digital Carbon

"Most of the available tools are too much. Too much cost. Too much effort to implement. Too much to maintain. OpenBOM is perfect for our agile startup to get our product to market. It's just the right size for us and fits nicely into our organization" - says David Anderson, Verdetech Products.

OpenBOM demonstrated strong growth in new user registration and customer usage in 2018. Engineers and manufacturing companies across the globe are using OpenBOM to manage bill of materials and coordinate their work. "New design to purchasing process is a unique way for engineering teams and medium size manufacturing companies to organize data and process between engineering, manufacturing and procurement and escape chaotic spreadsheet-based process" said Oleg Shilovitsky, CEO and co-founder of OpenBOM.

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PTC to Sponsor PI Apparel LA 2019 and Showcase its Retail Innovation Platform

15 February 2019

PTC is pleased to announce its sponsorship of the PI (Product Innovation) Apparel LA event on February 19-20 at the L.A. Grand Hotel.

PI Apparel brings together leaders in the fashion, apparel and footwear industry to discuss the challenges and technologies disrupting the industry. Topics to be featured at this year's event include: Digital Product Creation, Augmented Reality (AR), Virtual Reality (VR), Sustainability, Artificial Intelligence (AI), Product Lifecycle Management (PLM), Automation and Robotics, which perfectly align with the

capabilities found within PTC's Retail Platform.

PTC's Retail Platform combines the industry-leading FlexPLM solution with both 2D and 3D design, AI and AR to enable brands and retailers to digitize and accelerate key development processes and gain insights from across the enterprise to drive better merchandising, design, and sourcing decisions.

"We're delighted to sponsor and participate in this important industry gathering in Los Angeles," said Bill Brewster, Senior Vice President and General Manager of PTC's Retail Business Unit. "We're excited to meet with business leaders and executives that are working to digitally transform their product design, development and supply chain processes. We look forward to sharing our know-how and demonstrating why so many companies are selecting PTC as their preferred PLM and digital transformation partner."

PTC will highlight its latest Retail Platform capabilities at its booth with interactive on-site demos throughout the duration of the event. In addition, PTC will lead a thought-leadership session titled "Leveraging 3D and PLM to Speed Design and Development" that will take place on day one of the conference at 14:35 and will feature one of PTC's valued and long-term customers, Decker's Brands. The session will explore the demand for products to be produced at unprecedented speeds, and the impact of this on product design and development processes. Attendees will learn how 3D design can significantly reduce cycle time and how greater value can be achieved when 3D design tools are integrated with best-in-class PLM.

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Tacton joins Sweden's "Digital Co-Lab Factory" at this year's Hannover Messe

13 February 2019

Tacton will be part of the Swedish "Co-Lab Digital Factory" at the 2019 Hannover Messe.

The Swedish Pavilion offers visitors an amazing opportunity to find out first-hand about a range of forward-looking concepts for smart industry, automation, digitisation, IoT and AI. Tacton will be joined in the Co-Lab by Swedish industrial powerhouses TetraPak, SKF, ABB, Ericsson and Piab. With many of the country's most innovative start-ups also present, this promises to be a really exciting event. In addition to company-specific solution presentations, the "Co-Lab" partners will also perform a series of joint demonstrations where visitors will see how real value is added in productive use.

Tacton will show how the right CPQ solution can be used to implement enterprise-wide digital strategies. With Tacton, companies can increase the efficiency of their sales processes and take customer satisfaction to the next level. At the core of Tacton's offer is a cloud-based solution for the Configure Price Quote process, which simplifies sales of complex products. The solution includes design automation, 3D visualization and Augmented Reality.

Frederic Laziou, CEO of Tacton will be at the Messe, "Tacton is supporting numerous Swedish, German and other leading global manufacturing companies in their digital transformation efforts. Being part of the Swedish presence at the Hannover Messe is a great way to promote our vision and DNA and we're excited to be presenting in collaboration with other Swedish innovators. I'm especially looking forward to the Co-Lab Digital Factory, where we will jointly show how the use of innovative digital technologies can prepare manufacturers for the future."

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TCS at MWC 2019

15 February 2019

Tata Consultancy Services leaders will be showcasing TCS' innovative solutions across next-generation IoT technologies: TCS DigiFleet, TCS Energy Management, Connected Workforce, and more.

Feb 25-28 2019 Booth 5-C21 (Hal 5) Fira de Barcelona, Spain

Write tcs.iot@tcs.com to set up a meeting.

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Financial News

3D Systems Announces Conference Call to Discuss Fourth Quarter 2018 Financial Results

8 February 2019

3D Systems announced it plans to hold a conference call and simultaneous webcast to discuss its financial results for the fourth quarter and full year 2018 on Thursday, February 28, 2019, at 4:30PM Eastern Time. The company plans to release these financial results and file its Form 10-Q on February 28, 2019.

Fourth Quarter 2018 Results Conference Call

Date: Thursday, February 28, 2019

Time: 4:30 p.m. Eastern Time

Listen via

Internet: https://78449.themediaframe.com/dataconf/productusers/3dsy/mediaframe/28533/index1.html

Participate via telephone:

Within the U.S.: 1-877-407-8291 Outside the U.S.: 1-201-689-8345

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Implementation Investments

Boutique La Vie en Rose Inc. Selects Techni-Connection's integrated solution with CGS

BlueCherry® PLM and Cegid's Retail Management & POS Solution

12 February 2019

CGS, a global provider of business applications, enterprise learning and outsourcing services and Cegid, a leading provider of software solutions for retail, today announced that Boutique La Vie en Rose Inc., Canadian retailer, owner of lingerie, loungewear and swimwear chain la Vie en Rose as well as Bikini Village stores, offering brand name swimwear for both men and women, chose the unified retail commerce solution provided by CGS and Techni-Connection, a systems reseller and integrator of Yourcegid Retail Y2, a comprehensive Retail Management and POS platform. The Montreal-based retailer chose BlueCherry® Product Lifecycle Management (PLM), an essential module within the BlueCherry Enterprise Suite of solutions, providing end-to-end capabilities for apparel and consumer lifestyle brands. The company selected Cegid for its deep retail and fashion expertise, international coverage and extensive POS management capabilities delivered via Software as a Service (SaaS).

Boutique La Vie en Rose Inc., owned by François Roberge, began an extensive search in 2017 for retail management, PLM and merchandise planning to support its digital transformation initiatives. Ultimately, the company selected Techni-Connection's proposed solution of CGS for its BlueCherry PLM and Design & Sourcing Suite and Omnichannel Merchandise Planning; and Cegid for its Omnichannel POS and retail management solution to adapt to modern shopping habits. With the combined team's extensive expertise and resources in the consumer lifestyle products market, the suite will help support the company's growth, eliminate manual processes and improve overall productivity.

"To achieve our global growth plan, we looked at applications available to apparel and fashion companies like ours," said Éric Champagne, Chief Information Officer of Boutique La Vie en Rose Inc. "We selected CGS and Cegid with Techni-Connection for their comprehensive solutions. Working jointly with CGS, Techni-Connection and Cegid, we believe we have the best partnership to accomplish our goals."

"With more than 30 years of fashion and apparel experience, CGS understands the value of having the right solutions in place to help business operations run efficiently and effectively," said Paul Magel, president, Business Applications and Technology Outsourcing division, CGS. "We're excited to have Boutique La Vie en Rose Inc. join the BlueCherry community and to help further its growth with BlueCherry PLM to support its growing operations."

"The key to providing the solution that Boutique La Vie en Rose Inc. needed for its digital transformation was bringing together the most innovative, best-of-breed solutions on the market, and to integrate them. The Techni-Connection development team worked with CGS to integrate BlueCherry and Yourcegid Retail Y2, providing the tools necessary for Boutique La Vie en Rose Inc. to advance with its five-year growth plan," said Kenneth LeBlanc, Founder & CEO of Techni-Connection. "Working with Boutique La Vie en Rose Inc. has been an absolute pleasure, and we look forward to continuing our relationship as we provide support for many years to come."

"To create a remarkable customer relationship, brands need to provide a unified and frictionless shopping experience regardless of channel. That unified approach cultivates brand differentiation and, ultimately, loyalty," said Donna Armstrong, COO of Cegid North America. "Boutique La Vie en Rose Inc. is an example of a retailer ready to challenge outdated retail models. We're proud to help the brand strengthen its operational retail foundation, seize new growth opportunities locally and internationally and, equally important, convert every possible sale, be it online or in-store."

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Harley-Davidson to Redefine Riding with IBM Cloud

13 February 2019

Harley-Davidson Motor Company and IBM today unveiled how cloud, IoT and AI technologies will reimagine the everyday experience of riding. The new experiences will arrive courtesy of the iconic American motorcycle manufacturer's first electric motorcycle, LiveWireTM, and will transform the motorcycle industry over the coming decade.

Earlier this year, Harley-Davidson (H-D) announced its first all-electric motorcycle, called LiveWireTM, part of its More Roads to Harley-Davidson accelerated plan for growth. The plan includes initiatives to deliver new products in additional motorcycle segments, broaden engagement with the brand, and strengthen the H-D dealer network. It also boldly proclaims that Harley-Davidson will lead the electrification of motorcycling.

Today H-D joined IBM to unveil how LiveWire's H-DTM Connect service (available in select markets), built on the IBM Cloud, will deliver new mobility and concierge services today and how the company is expanding the use of IBM artificial intelligence (AI), analytics and IoT to enhance and evolve the rider's experience of the vehicle. In order to capture the next generation of motorcycle riders, H-D is working with IBM to transform the everyday experience of riding through the latest technologies and features.

The LiveWire motorcycle is equipped with H-DTM Connect service, a technology that provides cellular connectivity and links a LiveWire owner with their motorcycle through their smartphone using the latest version of the Harley-DavidsonTM App. Built on IBM Cloud, this platform is the foundation on which Harley-Davidson will provide its riders with new services and insights via its first-ever production electric vehicle.

"LiveWire is a fully cellular-connected electric motorcycle, and we needed a partner that could deliver mobility solutions that would meet riders' changing expectations, as well as enhance security," said Marc McAllister, Harley-Davidson VP Product Planning and Portfolio. "With IBM we have struck the balance between using data to create both intelligent and personal experiences, while maintaining privacy and security."

H-D Connect is a technology that provides cellular connectivity and links a LiveWire owner to their motorcycle through their smartphone using the latest version of the Harley-DavidsonTM App. Built on IBM Cloud, this platform is the foundation on which Harley-Davidson will provide its riders with new services and insights via its first-ever production electric vehicle.

For now, IBM Cloud is enabling infrastructure and connected services to fundamentally change the way Harley-Davidson connects riders to their motorcycles and gain insights to power new user experiences such as:

- Powering The Ride: LiveWire rider's will be able to check bike vitals at any time and from any location. Information available includes features such as range, battery health, and charge level. Motorcycle status features will also support the needs of the electric bike such as the location of charging stations. Also riders can see their motorcycle's current map location.
- Powering Security: An alert will be sent to the owner's phone if the motorcycle has been bumped, tampered or moved. GPS-enabled stolen-vehicle assistance provides peace of mind that the motorcycle's location can be tracked. (Requires law enforcement assistance. Available in

select markets).

• Powering Convenience: Reminders about upcoming motorcycle service requirements and other care notifications will be provided to the rider. In addition, riders will receive automated service reminders as well as safety or recall notifications.

"The next generation of Harley-Davidson riders will demand a more engaged and personalized customer experience," said Venkatesh Iyer, Vice President, North America IoT and Connected Solutions, Global Business Services, IBM. "Introducing enhanced capabilities via the IBM Cloud will not only enable new services immediately, but will also provide a roadmap for the journey ahead."

At Think 2019, IBM will outline new offerings, client engagements, partnerships, technology breakthroughs and developer tools that underscore how IBM and partners are changing the way the world works. For more information, visit the IBM Think 2019 Newsroom: https://newsroom.ibm.com/think. Follow the conference on Twitter at #think2019 and @ibmlive, and go to https://www.ibm.com/events/think/ for the full schedule and live streaming agenda.

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Lighting Manufacturer Schréder Moves to PTC's PLM Software as a Service to Cut Product Development Costs

14 February 2019

PTC announced that Schréder, a leading independent outdoor lighting manufacturer, is moving its PTC Windchill® product lifecycle management (PLM) solution from on-premises to the PTC Cloud. With this move to Software as a Service (SaaS), Schréder will be able to focus on accelerating product innovation and development with the peace of mind that comes with continuous systems and security optimization through PTC-owned upgrades and updates.

For 111 years, Schréder has been designing lighting solutions—from highways, tunnels, and residential streets to pedestrian areas, monuments and more. The company is an expert in LightabilityTM solutions and has been at the forefront of innovation. Lightability reimagines the way light is used through efficiency, innovation, sustainability, and expertise.

Having already leveraged PTC's Windchill PLM solution to manage its complex product lifecycle, Schréder is now embracing a cloud strategy. Schréder will use PTC's Cloud Migration Service to decustomize and efficiently move its on-premise data to the PTC Cloud. In addition, the move to a managed subscription service will make software and related costs more predictable and help Schréder keep up with the most current releases.

"Our products light up some of the world's most historic sites, from Rome's Coliseum to the Channel Tunnel. Product development has been fundamental to more than a century of success, and our relentless passion for innovation means we are always on the lookout for new ways to maximize our processes and technology," said Jean-Jacques van Gils, group IT manager, Schréder. "As part of our cloud strategy, we decided on PLM in the PTC Cloud to reduce our IT infrastructure and operating environment costs, free up stakeholders to work on other tasks, and accelerate our time to market."

PTC Windchill, an industry-leading PLM application suite, makes it easier than ever to break down organizational barriers. Windchill leverages multi-system data orchestration for a consolidated, accurate

view of product information, including the associative BOM, multi-CAD data, and visualization management. With a flexible, open, and integrated architecture, Windchill is easy to upgrade and designed for performance and scale. PTC Windchill has been recognized as a leader in PLM by [various organizations].

PTC's PLM Cloud solution is a flexible SaaS solution for companies looking to run their environments on the latest hardware and latest operating system versions, with flexible network connections, high security, disaster recovery, and more. The PTC PLM Cloud solution provides proven, closed loop and enterprise-class, IoT-ready PLM capabilities that enable companies like Schréder to achieve greater scalability and improved time-to-value.

"Moving from on-premises to the cloud is a smart, strategic business decision for any company to make. Not only can it help cut costs, but it also frees up stakeholders to focus on how to improve the business, rather than waste time maintaining an enterprise system," said Kevin Wrenn, divisional general manager, PLM Segment, PTC.

The SaaS offering is being implemented in conjunction with PTC's partner Ad Ultima Group.

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Renault Selects Aras to Enable Full Lifecycle Traceability

13 February 2019

Aras today announced that Renault, a leading French multinational automobile manufacturer, has selected the Aras PLM Platform to manage vehicle software configurations that will be distributed over the air.

Renault has been operating on multiple in-house PLM systems that are not capable of supporting their current needs. They require a PLM system that is flexible enough to handle high level configuration management and full lifecycle traceability. Traceability is enabled by proper implementation of a PLM platform, and Aras' configuration management capabilities establish traceability between all affected elements of a system.

The Aras PLM Platform will allow Renault to create a set of various engineering applications, which require PLM and Configuration Management. Engineers will be able to build consistent software configurations according to the options and variants of each individual car, resulting in the ability to maintain a vehicle's operation in the field.

Renault selected the Aras PLM Platform for its high degree of flexibility, ability to meet specific requirements, and the guarantee against application obsolescence.

Stephane Guignard, Vice President South EMEA, Aras, said, "The automotive sector thrives on bringing new models – and new vehicle technologies – to market as quickly as possible. With a flexible platform for managing the product lifecycle, manufacturers can gain a clear advantage over the competition. We're delighted that, after Nissan, Renault has chosen Aras."

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Product News

ANSYS Twin Builder Empowers Organizations to Optimize Product Operations and Accelerate Product Development

12 February 2019

ANSYS is enabling product developers to potentially save millions of dollars in warranty and operational costs with the latest release of ANSYS® Twin BuilderTM. The comprehensive solution empowers users to provide seamless preventive maintenance for operational field assets while enabling the creation of new business models and accelerating next generation product development.

ANSYS Twin Builder enables equipment operators to create a virtual representation – a digital twin – of machines that helps monitor performance and maintenance requirements, improving the machine's sustainability and efficiency. At ANSYS 2019 R1, ANSYS Twin Builder supports digital twin runtime generation capabilities and model export for industrial internet of things platforms. The update empowers users to unlock actionable insights from field asset data through the use of physics and simulation-based analytics.

The new release of Twin Builder also enables users to more easily reuse existing 3D simulation models through reduced order modeling capabilities — preserving the accuracy of simulations while reducing storage requirements and enhancing simulation speed by up to 100x. Users can quickly modify digital twin models of deployed assets and mirror altered or upgraded field equipment, such as pumps, motors and turbines, to better perform predictive maintenance.

"ANSYS Twin Builder and other ANSYS products perform circuit quality pre-verification and electromagnetic interference simulations of our home appliances" power electronics, electrical motors and controllers," said Gwigeun Park, research fellow, LG Home Appliance & Air Solution Company. "With the help of Twin Builder, we're developing innovative products by implementing digital twins to create virtual prototypes at the component level and share IoT information among products — supporting research to boost product reliability, reduce the time to market, decrease the need for physical testing and improve product development."

"Digital twins are expected to unlock significant value for organizations by increasing operational efficiency, empowering new and more profitable business models and enabling early adopters to leapfrog competition," said Sameer Kher, Director, Product Development, Systems and Digital Twins, ANSYS. "ANSYS Twin Builder enables users to quickly build, validate and deploy simulation-based digital twins—improving both top and bottom-line operations."

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BobCAD-CAM Releases New BobCAM v& for Solidworks CAM Software

13 February 2019

BobCAD-CAM, Inc. announces the release of their new SolidWorks CAM plug-in, BobCAM V7 for SolidWorks. BobCAM V7 for SolidWorks made its debut at SolidWorks World 2019 in Dallas, Texas and will be on sale to the public today, February 13, 2019.

"We are very excited to present a ton of enhancements to the BobCAM for SolidWorks product line. Users now have the ability to work in both Part and Assembly mode now in the new V7. This really gives users all the options to harness the power of SolidWorks to be used in toolpathing processes. Every user, no matter which product they use, is going to see all the benefits of the V7 product versus previous versions," says Greg Myers of BobCAD-CAM's developmental team.

The new V7 has been optimized to deliver a simplistic, yet powerful workflow that delivers better part finishes in less time. Listed below are the top 10 features from the new BobCAM V7 for SolidWorks.

1. BobCAM in Assembly

BobCAM V7 for SolidWorks allows users to fully utilize SolidWorks' part and assembly files for part programming.

2. Fixtures for Simulation

This new feature in V7 gives the user a better visualization of their part setup in a simulation.

3. Advanced Feedrate Mapping

BobCAM V7 for SolidWorks provides optimized feedrates for more efficient programs.

4. Toolpath Editor

The toolpath editor provides user-customized toolpaths for better performance.

5. Advanced Pocketing Patterns

Users now have additional options for pocketing cycles to choose from in the new V7.

6. Drag Knife

Choose the drag Knife cutting strategy for cardboard, vinyl, leather, and other thin materials.

7. Trim Extend/Minimize Retract

BobCAM V7 for SolidWorks features enhanced user control to optimize cycle times.

8. Rotary Rough & Finish 4 Axis

Users that have 4 axis capabilities will experience easier and faster programming of complex 4 axis roughing & finishing operations.

9. Multiaxis Posting Enhancements

New multiaxis posting enhancements provide setup & operator friendly G-code output for 4 & 5 axis posting.

10. NC Editor

Our V7 Standard editor comes packed with more features that are easier to use.

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Capgemini launches 'Perform AI'

1 February 2019

Capgemini launched Perform AI, a new portfolio of solutions and services to assist organizations in achieving and sustaining tangible business outcomes by building and operating enterprise-grade artificial intelligence (AI) at scale. The portfolio provides customers with a complete set of solutions to infuse AI in their organizations, delivering operational excellence and business innovation for immersive, highly personalized experiences. Leveraging the full capabilities of the entire Group – from strategy and design through to global implementation and management – Perform AI brings together people, process, data and technology to realize superior, sustainable and trusted business performance.

A <u>recent publication</u> from the Capgemini Research Institute highlighted that a mix of anxiety and ill-informed opinion is obscuring the risks and opportunities of implementing AI. Organizations therefore need a pragmatic approach to move forward.

Perform AI has been designed to address the real opportunities and the critical challenges which companies confront today, whatever their maturity on data management and AI:

- Applying AI at scale: Moving beyond proofs-of-concept and isolated deployments to industrialize AI across the enterprise, scaling the business benefits throughout the organization.
- **Empowering people:** Proactively managing the impact of AI initiatives on augmented workforces and seeking the best interactions between people and AI.
- Transforming operations and beyond: Applying AI-based technologies to assist, augment or automate operations, right through to reimagining business processes.
- **Embedding ethics:** Applying AI with an ethical and responsible approach; one that is transparent to users and customers, embeds privacy, ensures fairness, and builds trust.
- **Spurring innovation for competitive advantage:** Leveraging AI to introduce entirely new business models, ways of working, products, services, and experiences, offering legacy enterprises the opportunity to leapfrog their current market positions to ones previously reserved for digitally native enterprises only.

"Most companies have already started to experiment with AI to help them transform certain functions within their business, but those that adopt it effectively and throughout the enterprise will gain true competitive advantage," comments Lanny Cohen, Group Chief Innovation Officer at Capgemini. "To realize true real-world impact and ensure sustained success, companies need to move beyond isolated initiatives to infusing AI into everything they do – from simply changing technologies to shifting the entire game. With Perform AI, we are laser-focused on applying AI to achieve mission-critical, high business impact, resulting in tangible performance outcomes for today and in the future."

Capgemini's Perform AI portfolio comprises four core components, affording vital flexibility needed for bespoke roadmaps through to rollout of AI at scale across a business:

- 1. **AI ACTIVATE:** Creates the strategic direction and the organization and technology platforms for where and how AI should be applied and adopted in the enterprise for maximum impact.
- 2. **AI TRANSFORM:** Delivers AI-infused performance improvements to optimize existing business processes and to create the springboard for long term growth by introducing the right AI technologies and solutions among the vast and rapidly expanding volume of tools and solutions.

- 3. **AI REIMAGINE:** Draws upon the strategy and innovation capabilities within Capgemini Invent and Capgemini's network of Applied Innovation Exchanges to help organizations envision new products and services, customer experiences, operating and business models, and revenue streams.
- 4. **AI ENGINEERING:** Provides foundation services to ensure the enterprise's data estate and governance deliver trusted AI solutions in production and at scale. AI Engineering addresses the operating core of AI data underpins every stage of the transformation.

To concentrate asset and solution creation as well as expert capability development, Capgemini has created a network of cross-practice AI Centers of Excellence (CoEs). These Perform AI CoEs are now operational in France, Germany and North America, all supported by a hub CoE in India. Geographical coverage of the Perform AI CoEs will be extended throughout 2019.

Markets of primary focus for Perform AI are the Manufacturing and Financial Services sectors, as well as the Customer Experience domain. Cappemini has worked closely with its extensive ecosystem of technology partners, start-ups and academia to build AI solutions that help address these specific industry needs, including a Manufacturing intelligence platform leveraging computer vision for quality defects prevention and machine learning for failure detection; cognitive analytics to address multi-dimensional underwriting risk in the Financial Services sector; or natural language processing, conversational interfaces and computer-vision based emotions recognition to predict and understand consumers' needs with unmatched certainty.

With data privacy and security emerging as some of the most important priorities for businesses, it is vital that companies balance their AI innovation with efforts to secure and maintain the trust of their customers, partners, and employees. Cappemini's Perform AI portfolio focuses on the ability to secure data and AI platforms.

Building on its existing recognition as one of the world's most ethical companies, Cappemini has integrated ethics into the foundations of its Perform AI portfolio.

"We have launched Perform AI to enable organizations to augment operations and potentially reinvent their business at a time when they are expected to regularly meet and exceed customers' expectations that are higher and more diverse than ever before," concludes Anne-Laure Thieullent, AI and Analytics Group Offer Leader, Capgemini. "Through the application of AI technologies, our Perform AI solutions will increase the speed of execution and certainty of success for our clients' AI initiatives, which are sometimes still fragmented and not exploited to their full potential. With Perform AI and the follow up releases of this new portfolio, we are dedicated to becoming the premier AI-infused consulting and technology services company and are excited to take our clients to the next stage of their journey to the Intelligent Enterprise."

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Dassault Systèmes Introduces 3DEXPERIENCE.WORKS

11 February 2019

Dassault Systèmes announced the creation of 3DEXPERIENCE.WORKS, a new portfolio of industry-aware applications on the 3DEXPERIENCE platform that is tailored to the needs of SOLIDWORKS customers and small and midsized companies everywhere. 3DEXPERIENCE.WORKS uniquely

combines social collaboration with design, simulation and manufacturing ERP capabilities in a single digital environment to help growing businesses become more inventive, efficient and responsive in today's Industry Renaissance.

3DEXPERIENCE.WORKS was introduced today at SOLIDWORKS World 2019, Dassault Systèmes' annual conference dedicated to the 3D design and engineering community. 3DEXPERIENCE.WORKS extends the ease of use and simplicity that have been hallmarks of SOLIDWORKS applications used by millions of innovators for nearly 25 years, to a new category of business solutions on the 3DEXPERIENCE platform composed of fine-tuned and simplified applications. Dassault Systèmes created 3DEXPERIENCE.WORKS following its acquisition of IQMS, whose manufacturing ERP portfolio of software applications for mid-market manufacturers has since been rebranded as DELMIAWORKS.

"Small and midsized firms worldwide need digital solutions to grow but have long been challenged to find ones that are right for their size. By introducing 3DEXPERIENCE.WORKS, we bring the platform effect to them," said Bernard Charlès, Vice Chairman and CEO, Dassault Systèmes. "We see the benefit the 3DEXPERIENCE platform has quickly brought to designers using SOLIDWORKS to expand their business. The 3DEXPERIENCE.WORKS family now includes DELMIAWORKS to serve mainstream manufacturers by providing a full digital thread for business operations. The 3DEXPERIENCE platform is poised to become the benchmark for business operations in this category of firms through well integrated offerings spanning manufacturing and management that are simple, affordable and easy to implement."

3DEXPERIENCE.WORKS will allow small and midsized companies to harness the values that the 3DEXPERIENCE platform delivers to global leaders and innovators: improved collaboration, manufacturing efficiency, business agility and an empowered workforce. Companies can accomplish their work using one cohesive digital innovation environment instead of using a complex series of point solutions that requires jumping between applications and interfaces. 3DEXPERIENCE.WORKS connects data and streamlines processes from concept to delivery by providing dashboard templates, managed services, access to industry-focused communities and user groups, and applications specific to a variety of job roles.

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Enhancements in Mastercam Router Focus on Improved Productivity

11 February 2019

Mastercam 2019 Router brings a suite of programming tools focused on delivering speed, automation, and efficiency for all machining jobs. Mastercam Router gives your shop the best possible foundation for fast and efficient routing. From general purpose methods, such as optimized nesting and block drilling, to highly specialized toolpaths like 5-axis trimming, Mastercam Router delivers a comprehensive routing package to improve productivity.

Job Setup and Model Prep

Job setup is faster and more flexible in Mastercam 2019. Expanded CAD-for-CAM tools let you quickly modify and prep solids for cutting, automate hole creation, and smoothly patch holes in complex surface models. New setup sheet tools let you document the process with an unlimited number of captioned

images.

2D Machining

Mastercam Router delivers the tools you need for precise control over all aspects of 2D machining including contouring, drilling, pocketing, and more. Mastercam also delivers a powerful way to automatically mill and drill solid models—Feature Based Machining. FBM evaluates a part's features and automatically designs an effective machining strategy. Automatic Toolpathing (ATP) brings in parts from today's top design packages to help speed flat panel work.

3D Machining

Mastercam Router gives you a variety of techniques to rough machine all your parts. You can rough cut multiple surfaces, solid models, STL files, or any combination of these. Mastercam's suite of finishing tools lets you choose the best method for the results you want to create. The software automates leftover material identification and removal, providing you with finer finishes. And, Dynamic Motion technologyTM extends tool life and reduces machine wear, while eliminating tool dwell damage.

Multiaxis

In Mastercam Router, you have complete control over toolpath type, tool motion, and tool axis. In addition to general-purpose multiaxis machining, Mastercam also has specialized Add-Ons for multibladed parts (Mastercam Blade Expert) and cylinder head ports (Mastercam Port Expert).

Other Mastercam Router Features

- Enhanced machine simulation, including block drills
- Complete tab control including Full Tabs and Partial Tabs.
- Mastercam's standard nesting delivers a fast, efficient, and easily identifiable way of nesting your parts.
- Mastercam's advanced nesting gives a variety of additional tools, including TrueShape nesting and nesting in scrap material.
- Mastercam's engraving can give you the effect of classic hand-carved art using your CNC machine.
- And much more.

To see more powerful tools in the Mastercam 2019 Router release, or to see Mastercam videos, please visit www.mastercamrouter.com

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Gerber Innovates to Meet Personalization and the Need for Speed Challenges with AccuMark® Version 12 Launch

12 February 2019

Personalization, convenience and value: online and offline shoppers want it all. They expect brands and retailers to understand their needs and deliver new styles and trends faster than ever before. "To survive

and more importantly thrive in today's markets, fashion players need to improve their agility, speed and connectivity," said Mary McFadden, VP of CAD Product Management, Gerber Technology. "Our Version 12 AccuMark Platform release delivers on these demands from product design and development to 3D sampling through optimized production planning and manufacturing."

This is Gerber's first of many software releases of 2019. It's a year that promises to be notable for Gerber, as they deliver on a robust roadmap and work toward the opening of their NYC Innovation Center and Microfactory. Version 12 of the AccuMark Platform solves your business' need for speed and adds features to address your customers' demands for personalization. Its robust feature set is capable of addressing both on-demand or digital printing workflows as well as fully optimized mass production operations.

Version 12 software advancements include:

- AccuMark 2D CAD The industry-leading intelligent CAD pattern design, grading, and marker making application has added a vast number of new features in V12. New features are focused on simplification and giving users more control of their entire workflow with more options for personalization and modern controls. Some key enhancements include multi-dimensional grading as an easier alternative to alterations, pattern wizard updates to simplify and shorten processes, expanded digital printing workflow capabilities, personalized reporting options and visual customization tools.
- AccuMark 3D The industry's leading fully-integrated 2D to 3D solution continues to build on the integration of the industry-leading Avametric Fabric Simulation Engine added in V11. Version 12 adds support for optical and surface texture effects from Vizoo and X-Rite scanners to provide an even higher level of realism. A new live drag within a simulation allows a user to tug on a garment to help assess and control fit. Avatars with additional poses have been added to help with speed and personalization. Finally, to enable designers to validate ideas early in the concepting stage, AccuMark now offers a hiresolution photorealistic prototyping service improving speed and cutting weeks off a development cycle.
- AccuPlanTM Integrates seamlessly with AccuMark to optimize spread and cut planning. Version 12 of AccuPlan includes the addition of multiple fabric property features to capture selvage, shrink/stretch percentage values and major enhancements to planning and reporting features. The updates to the AccuPlan application continue to improve speed, efficiency and the optimization of material utilization. The new fabric property features allow for greater planning and optimized material consumption. The addition of customizations in reporting and a new production tracker report provides greater management control and visualization into the workflow for improved agility and the ability to plan multiple purchase orders together, and accurately report on fabric consumption.

"We continue to examine key industry trends and listen closely to our customers in our development cycle," continued McFadden. "This is what drove all of the innovations we added in this release."

With the launch of AccuMark Platform Version 12, comprehensive online and in-person training can be secured through Gerber University. The training platform provides classes on AccuMark, 3D, pattern design and more.

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IBM Helps Organizations Monitor Their Workers' Safety with Watson IoT

13 February 2019

From the IBM Research blog:

"Since launching its Q Network initiative in 2017, IBM Research has been working with more than 40 Fortune 500 companies, academic institutions, research labs and startups worldwide to advance the state-of-the art in quantum computing technology for commercial use. The diverse institutions and industries in the network are getting ready for a world beyond Moore's Law, in which quantum computing has the potential to solve certain classes of problems in chemistry, artificial intelligence, and optimization once thought intractable.

Quantum computing marks an exponential advance in computing unlike any preceding it. New ways of thinking are needed to continually improve the hardware and develop software that can fully harness its potential. The next few years mark a formative period, with companies investigating where the technology aligns with their business needs. And computer scientists will work alongside physicists to better understand the fundamental science needed to build increasingly powerful systems.

The IBM Q Network partners with early adopter, innovative organizations, offering access to IBM's most-powerful quantum computing systems through the cloud. Only through this exchange of ideas, research and testing will quantum computing reach its full potential, powering breakthroughs that lead to new medicines and materials as well as advanced business and financial models.

Here's is a look at how some of the Q Network organizations are getting quantum ready, researching possible quantum advantages in their industries:

Meeting Tomorrow's Business Challenges

Daimler AG

Automaker Daimler, an IBM Q Network partner has a broad interest in how quantum computing can impact everything from the optimization of transportation logistics, to predictions about future materials for electric mobility, which is based on well-functioning cell chemistry of vehicle batteries. There is justified hope that quantum computers will yield initial results in the years ahead to precisely simulate battery-cell chemistry, and the aging processes and performance limits of battery cells.

"Since joining the IBM Q Network, Daimler's team continues to work in close collaboration with IBM to advance the field of quantum computing for chemistry and materials science in an effort to realize novel paths to computationally guided materials discovery," said Ben Boeser, director, Open Innovation, Mercedes-Benz R&D North America.

JPMorgan Chase

The U.S.'s largest bank by assets has spent the past several months assembling a team of engineers and mathematicians who work alongside IBM researchers to determine how quantum computing can improve trading strategies, improve client portfolios, and better-analyze financial risk. One quantum algorithm under development, for example, could potentially deliver a quadratic speedup in use cases of derivative pricing—a complex financial instrument that requires 10,000 simulations to price on a classical, conventional computer, would need just 100 quantum operations on a quantum device.

[When achieved], it would drive down overall compute costs and help the firm manage risk closer to

real-time, says Nikitas Stamatopoulos, a theoretical quantum physicist and programmer with JPMorgan Chase.

Accenture

IBM's Q Network is one of the quantum platforms that has helped support the professional services firm's efforts to help its clients explore both the longer-term and more immediate impact that quantum computing could have on their organizations. Accenture will present several prototype quantum-computing applications at IBM's 2019 THINK conference that demonstrate how the technology could vastly improve systems and processes many companies already have in place, including recommendation engines, vehicle route planners, and customer service systems. The goal is to inspire companies to start thinking pragmatically about how they can prepare themselves to harness the power of quantum computing, rather than dismissing the technology as something confined to research laboratories.

A lot of quantum's near-term value is allowing companies to revisit existing challenges and getting them to raise their expectations, according to Carl Dukatz, who leads Accenture's Quantum Computing program. "If quantum computing is ultimately the game changer it's predicted to be, we want our clients to be ready to embrace it."

Opening Quantum Computing Up to More People

Cambridge Quantum Computing

This Q Network startup is one of several organizations filling the crucial role of creating tools that enable developers and commercial users to take advantage of quantum computing without the need for deep expertise in the technology. Cambridge Quantum Computing's t|ket> (pronounced "ticket"), for example, works with Qiskit, IBM's open-source quantum software platform, to help developers compile and optimize their programs for quantum computing hardware.

One of the most significant near-term commercial applications for CQC's technology is the development of programs that apply quantum computing to the search for new chemical compounds that could lead to new drug discoveries, or automobiles made from lighter, yet more durable materials.

OC Ware

The Palo Alto, CA-based startup is likewise playing an important role in commercial quantum computing by developing a software platform to help organizations without the expertise to develop their own quantum computing applications. The company also researches new algorithms and applications well-suited for quantum computers. QC Ware's goal is to remove the bottlenecks that could slow quantum adoption. Ultimately, the idea is that a trader at a financial services firm, for example, would be able to leverage the power of a quantum computer without needing to know anything about the technology, other than its ability to solve a previously intractable problem.

A Giant Leap for Science and Discovery

NC State University

NC State, the first university in North America to establish an IBM Q Hub as part of the global IBM Q Network, is in the early stages of developing a multidisciplinary quantum-computing curriculum to

educate future leaders in the space. The hub's leadership has spent the past few months assembling a group of professors and students with expertise in mathematics, chemistry, physics, computer and electrical engineering, and computer science to chart a path forward for the university's quantum computing research. As part of this effort, the university announced an endowed Distinguished Chair in Quantum Computing, a faculty position that will hold tenure in the Department of Electrical and Computer Engineering, and will be a key leader in the growing quantum computing community at the university.

NC State researchers have already begun investigating how quantum systems can greatly speed machine learning techniques for training artificial intelligence systems and performing highly complex molecular modeling, which is crucial to the discovery of new chemical compounds and, eventually, new types of materials, medicines and other breakthroughs.

Keio University

The first IBM Q Hub in Asia, Keio is working with IBM to help organizations explore quantum applications important to business and science, while at the same time introducing the technology to the next generation of scientists. The university has spent the past several months bringing together members of its team, which includes students working alongside scientists with expertise in quantum chemistry, financial modeling, quantum encryption and security, and other areas to determine which algorithms may be most useful. The students and researchers are also learning how to map their algorithms to qubits on the quantum chip and writing programs so they run efficiently, which reduces the amount of time in which errors can occur while a program is running.

Oak Ridge National Laboratory

Part of the U.S. Department of Energy, Oak Ridge is exploring how quantum computers, working alongside the world's fastest supercomputers, including IBM Summit, can help researchers benchmark new methods for studying strongly correlated dynamics in quantum materials, chemistry, and nuclear physics. Simulations at the atomic level are so complex that even the most powerful conventional computers can provide only estimations.

Oak Ridge researchers are the first to successfully simulate an atomic nucleus using a quantum computer by performing more than 700,000 quantum computing measurements of the energy of a deuteron, the nuclear bound state of a proton and a neutron. From these measurements, the team extracted the deuteron's binding energy—the minimum amount of energy needed to disassemble it into these subatomic particles— making a giant leap in the use of quantum computing for scientific simulations.

These and dozens of other IBM Q Network organizations are pushing quantum into the mainstream as a technology that may soon have great utility across industry, academia, and everyday life."

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IBM: Taking the next step towards deploying blockchain for business anywhere

12 February 2019

Announced on the IBM blog:

"Throughout IBM Think, an important message has resonated everywhere — empowering businesses to

overcome vendor lock-in and the freedom of choice to apply IBM technology wherever data resides.

Our Watson team made some major announcements this week about making AI models and applications run across any cloud. Today, we are re-stating that same commitment for the IBM Blockchain Platform.

For two years, IBM has led the enterprise blockchain market, enabling hundreds of companies to build solutions, convene networks, and rapidly move into production on the IBM Blockchain Platform. And now, it's time for those networks to grow *anywhere*.

See how blockchain solutions transform industries

As the market matures and new use cases emerge, one thing has become clear — the value of blockchain networks increases with the addition of diverse members. In today's complex IT world, organizations run their systems across multiple environments — both on-premises and across cloud vendors.

IBM's vision is a fully-flexible blockchain platform that can truly run in any computing infrastructure. Back in November, IBM took the first steps toward this multi-cloud strategy with the release of two offerings. IBM Blockchain Platform for IBM Cloud Private allows an organization to connect their on-premises computing systems to cloud-based blockchain networks to meet data residency, compliance requirements or corporate preferences. IBM Blockchain Platform for AWS makes it simple for organizations to deploy IBM Blockchain Platform components natively, through templates, on AWS.

Today, we are unveiling the first look at the next generation of the cloud-based IBM Blockchain Platform with a free 2.0 beta. It has been rearchitected for hybrid and multi-cloud deployment capabilities, enabled by Kubernetes containers. The new platform will give users the freedom to run blockchain components in any environment, whether on the IBM Cloud, on-premises, or in other public clouds..."

To read the rest of the post, please visit https://www.ibm.com/blogs/blockchain/2019/02/taking-the-next-step-towards-deploying-blockchain-anywhere/

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IBM Unveils New Offerings for Faster and More Secured Path to Hybrid Cloud

12 February 2019

IBM today announced new hybrid cloud offerings to help businesses migrate, integrate and manage applications and workloads seamlessly and with security across any public or private cloud and onpremises IT environment.

The IBM Institute for Business Value estimates that by 2021, 98 percent of organizations surveyed plan to adopt hybrid architectures, but just 38 percent will have the procedures and tools they need to operate that environment1. The process today is challenging because it is largely manual with major security implications and a lack of consistent management and integration tools.

As part of today's news, IBM is launching new hybrid cloud tools and services designed to help enterprises navigate the complexities of this new landscape:

New IBM Cloud Integration Platform designed to reduce time and complexity to launch new

services and applications across cloud environments in a consistent and secure manner.

- New IBM Services designed to advise on holistic cloud strategies.
- New IBM Services designed to simplify the management of resources across cloud environments.
- New services designed to provide industry-leading security for data and applications in the public cloud.

"At Aetna, a CVS Health business, we see hybrid cloud as an integral part of our transformation journey," said Claus Torp Jensen, Chief Technology Officer, Aetna. "We want to use the best services from various cloud providers to create a seamless consumer experience and digitalize underlying business processes. For that, we are taking an API-centric approach to integration and making sure that all of our APIs are easily accessible across our hybrid cloud ecosystem."

New Cloud Integration Platform Designed to Dramatically Reduce Coding Time, Complexity

The IBM Cloud Integration Platform is designed to securely connect applications, software and services from any vendor regardless of whether those systems are on-premises, in a public cloud or a private cloud. The platform brings together a comprehensive set of integration tools in a single development environment. It can help improve productivity because integration specialists can write, test and secure code once, store it in the platform and reuse it – an arduous task that once monopolized their time. This can help companies cut the time and cost of integration by 1/3, while staying within their unique requirements for security and compliance2.

Integration is critical as enterprises optimize business processes and create more personalized customer experiences. However, integration is becoming increasingly complex because many enterprises surveyed are already using between two to 15 different clouds and want to deploy new cloud services such as AI, analytics and blockchain to stay ahead of the competition3.

With the IBM Cloud Integration Platform, companies can quickly bring to market new capabilities while freeing up integration specialists to focus on the more complex, system-level integrations.

"Most large organizations have data and workloads spread across multiple public and private clouds, SaaS and on-premises environments – sometimes as a result of their business process infrastructure, but also for compliance, regulatory and data privacy reasons," said Denis Kennelly, general manager, cloud integration, IBM. "The challenge in this environment is to overcome data and technology siloes to quickly deploy new business services and applications with security. Today, we are launching new capabilities designed to help unleash the full power of the hybrid cloud."

Learn more about the new IBM Cloud Integration Platform by visiting: www.ibm.com/cloud/integration/platform

New End-To-End IBM Hybrid Cloud Services

IBM is launching new IBM Services for Cloud Strategy and Design, a comprehensive set of services designed to advise clients on how to architect the right holistic cloud strategy from design, migration, integration, road mapping and architectural services to navigating their journey to cloud. IBM Services is establishing dedicated teams of consultants who are certified experts in the latest services and technologies across multiple cloud platforms. Teams will use open and secure multicloud strategies, drawing upon IBM's experience in IT transformation and collaboration with an ecosystem of cloud partners. The new services leverage IBM's industry-leading Cloud Innovate method, automated decision

accelerators and IBM Cloud Garage approach to support clients with co-creation and scaled innovation in application development, migration, modernization and management.

Building off of a recent partnership expansion announcement with ServiceNow, IBM is also introducing new IBM Services for Multicloud Management to provide a single system to help enterprises simplify the management of their IT resources across multiple cloud providers, on-premises environments and private clouds.

The delivery of IBM Services for Multicloud Management includes three layers designed to provide a single management and operations system:

- Business management applications that provide digital service ordering, modern service management, and cost governance to help manage spend;
- Orchestration an automation layer that helps enable services of different types, from different vendors to be integrated easily and made available to consumers;
- Operations a layer that helps enable infrastructure and operations administrators to monitor and maintain systems, including legacy infrastructure, private cloud, public cloud and container environments.

In addition, it includes a unified, self-service experience to users to facilitate faster and easier access to cloud services via an environment integrated with the ServiceNow Portal to configure and buy cloud services and solutions from multiple cloud providers. It also provides performance management services and offers the means to monitor and manage the health of the cloud.

"As we grow our digital business, moving our applications to the cloud is critical to help modernize our processes and deliver even better experiences for our customers. Adopting the right strategy and migration approach to cloud needs to be seamless and requires an understanding of our IT landscape," said Sarp Uzkan, vice president, IT, Tribune Publishing. "IBM cloud advisory services and tools provided a detailed assessment that determined not only which applications would be best to move to the cloud but a strong business case that would meet our needs and enabling us to explore the best approach for moving to the cloud."

Learn more about the new IBM Services by visiting: http://www.ibm.com/blogs/cloud-computing/2019/02/12/new-ibm-services-multicloud-world/

Industry-Leading Security for Data and Applications in the Public Cloud

Security remains a top concern across all industries and markets when deploying apps and data in hybrid cloud environments. In order to minimize threats, enterprises need to the ability to protect data at every stage of its journey, easily manage access and identity and gain visibility into the security posture for all of their applications.

IBM is launching the IBM Cloud Hyper Protect Crypto Service, which is designed to provide industry-leading security on the public cloud and is made possible by bringing IBM LinuxONE into IBM's global cloud data centers. This service will provide encryption key management with a dedicated cloud hardware security module (HSM) built on the only FIPS 140-2 level 4-based technology offered by a public cloud provider4.

This is part of the IBM Cloud Hyper Protect family of services, which is already providing enterprises like DACS and Solitaire Interglobal with industry-leading security and resiliency for their applications. To provide high levels of security across both public and private clouds, IBM is also announcing

significant enhancements to IBM Cloud Private on Z.

Learn more about IBM's new capabilities in cloud security by visiting: https://ibm.com/blogs/bluemix/2019/02/cloud-security-right/

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IBM Watson Now Available Anywhere

12 February 2019

IBM announced a new chapter in the journey from AI experimentation to wide-scale deployment and industry transformation. IBM has made Watson portable across any cloud and empowered businesses to prevent vendor lock-in and start deploying AI wherever their data resides.

"Businesses have largely been limited to experimenting with AI in siloes due to the limitations caused by cloud provider lock-in of their data," said Rob Thomas, General Manager, IBM Data and AI. "With most large organizations storing data across hybrid cloud environments, they need the freedom and choice to apply AI to their data wherever it is stored. By breaking open that siloed infrastructure we can help businesses accelerate their transformation through AI."

Watson, IBM's AI, is designed to help organizations put AI to work to improve the performance of business. With a clear set of applications, development tools, machine learning models, and management services, Watson is helping organizations around the world mine their data, predict outcomes, and automate time- and resource-sensitive processes.

Today's announcements advance this mission by providing businesses with a simpler, faster way to build, deploy and run AI models and applications across any cloud. With these tools in place, organizations can:

Run IBM Watson services, including Watson Assistant and Watson OpenScale, on any cloud. Through their integration with IBM Cloud Private for Data (ICP for Data), Watson and Watson OpenScale can now be run any environment – on premises, or on any private, public or hybrid-multicloud – enabling businesses to apply AI to data wherever it is hosted. Businesses will be able to infuse AI into their apps, regardless of where they reside. The flexibility this affords can remove one of the major obstacles to scaling AI, since businesses can now leave data in secure or preferred environments and take Watson to that data.

Deploy AI software that automates business processes for improved efficiencies and performance. New AI digital automation software is designed to enable clients to discover patterns in their business processes and then create AI-embedded programs to automate certain workflows.

Though the use of AI continues to gain attention in business, many organizations are still challenged to move projects forward. According to an MIT Sloan report, 81 percent1 of enterprises do not understand what data is required for AI, or how to access it. And a recent Gartner study2 found that, "data and analytics leaders continue to struggle with the complexity, time to integration and cost implications of their data integration projects, thereby inflating their schedules and delivery costs with multiple cycles of revised project scope."

Still, the vast majority of enterprises, 83 percent, according to the MIT Sloan report, agree that driving AI across the enterprise is a strategic opportunity.

Qatar Development Bank has collaborated with IBM to establish the IBM Innovation Hub Doha. One of the key technologies that the Hub will deploy is IBM Cloud Private for Data. "The exciting thing about IBM Cloud Private for Data is how quickly we will be able to drive new innovations in FinTech and SportsTech using the microservices within the platform," said Abdulaziz Al Khalifa, CEO, Qatar Development Bank. "What makes it especially attractive is that it enables us to develop and deploy new models quickly that brings the tools to the data, rather than the other way around."

ICP for Data is IBM's open, cloud-native information architecture for AI that comes integrated with advanced data science, data engineering and application-building capabilities, and is designed to help companies uncover previously unobtainable insights from their data. Openness is at the core of ICP for Data, for which Watson Studio is a key part. For example, based on internal study, 85% of Watson users are using open source languages and frameworks like Python, R, and TensorFlow, within the Watson family.3

Watson Comes to ICP for Data

At the heart of today's announcements is a series of new Watson microservices built for ICP for Data that are based on open source technologies and easily scalable across cloud environments. Based on the open-source Kubernetes technology, these new Watson microservices can be run on IBM Cloud, and other public, hybrid or multi-cloud environments.

The microservices are based on the following software solutions:

- Watson OpenScale: IBM's open AI platform for managing multiple instances of AI, no matter where they were developed including the ability to explain how AI decisions are being made in real time, for greater transparency and compliance.
- Watson Assistant: IBM's AI tool for building conversational interfaces into applications and devices. More advanced than a traditional chatbot, Watson Assistant intelligently determines when to search for a result, when to ask the user for clarification, and when to offload the user to a human for personal assistance. In addition, the Watson Assistant Discovery Extension enables organizations to unlock hidden insights in unstructured data and documents.

The new Watson services join Watson Studio and Watson Machine Learning, among other services, which are currently available on ICP for Data. Later this year, IBM will bring additional Watson services to ICP for Data, including Watson Knowledge Studio and Watson Natural Language Understanding.

In addition to this news, IBM today also announced that IBM Watson Machine Learning is being extended with a new Accelerator (Watson Machine Learning Accelerator) that enables high performance GPU clustering on Power Systems and X86 systems. Combined with IBM POWER9's industry-leading GPU memory bandwidth, the solution can offer up to 10x faster4 machine learning training than competitive solutions.

IBM Business Automation Intelligence with Watson

In addition to the release of these solutions, IBM announced a forthcoming software capability, called IBM Business Automation Intelligence with Watson. With this new software, business leaders will be able to apply AI directly to applications, helping to strengthen their workforce, from clerical to knowledge workers, to intelligently automate work from the mundane to the complex. In addition, the software will measure the level of impact and effectiveness of AI on business outcomes.

IBM Business Automation Intelligence with Watson is anticipated to be available later this year. In the

meantime, for more information, visit our early access program IBM.biz/GoAutomate.

About IBM & Artificial Intelligence

A world leader in AI for business, IBM has deployed Watson solutions in thousands of engagements with clients across 20 industries and 80 countries. IBM's Watson solutions are widely used in industries, including by 7 of the 10 largest automotive companies and 8 of the 10 largest oil and gas companies. Additionally, IBM Research is a world leader in the science of AI. In 2018, IBM secured 1,600 AI-related patents. And, IBM recently revealed its leading-edge Project Debater, created by IBM Research scientists.

Think 2019

At Think 2019, IBM will outline new offerings, client engagements, partnerships, technology breakthroughs and developer tools that underscore how IBM and partners are changing the way the world works. For more information, visit the IBM Think 2019

Newsroom: https://newsroom.ibm.com/think. Follow the conference on Twitter at #think2019 and @ibmlive, and go to https://www.ibm.com/events/think/ for the full schedule and live streaming agenda.

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Onshape's Latest Update

11 February 2019

Announced on the Onshape blog:

"CAD IMPROVEMENTS

ASSEMBLY CONFIGURATIONS

Onshape's unique approach to configurations using multiple independent inputs is now available at the assembly level.

VARIABLE AUTOCOMPLETE

Variables will now appear for autocompletion in feature dialogs, sketch dimensions, and a number of other places. Other helpful math functions, such as rounding, also autocomplete. For more information, take a look at our help documentation.

MIRROR IMPROVEMENTS

Mate connectors can now be used as a mirror plane in Part Studios.

DRAWING ANNOTATION IMPROVEMENTS

You can now add leaders (even multiple leaders) to GD&T frames, as well as multiple leaders to weld symbols and surface finish symbols.

HOLE CALLOUT SNAP IN ONSHAPE DRAWINGS

Hole Callouts will now snap in Onshape Drawings. This makes them easier to align for improved Drawings organization.

SECTION VIEW DEPTH

You can now define the depth of Section Views in Onshape Drawings.

IMPORT IMPROVEMENTS

Onshape now supports importing the following file types:

- ACIS up to 2018 1.0
- Solid Edge 2019
- SolidWorks 2019
- Unigraphics NX 12+

ENTERPRISE IMPROVEMENTS

SINGLE SIGN-ON WITH GOOGLE

Enterprise administrators can now enable single sign-on (SSO) to Onshape through a user's Google account. This enables users to sign in with Google, but does not include identity management with Google. SSO is available for Onshape's web and mobile platforms. Administrators can enable SSO under their company authentication settings."

To see the full post with images, please visit https://www.onshape.com/cad-blog/whats-new-in-onshapes-latest-update-february-11th-2019

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Oracle Accelerates Adoption of Enterprise Blockchain Worldwide

12 February 2019

Businesses around the world have already reaped the benefits of blockchain applications built on Oracle Blockchain Platform. Companies using Oracle's business-ready blockchain have been able to move from experimentation to production by creating new blockchain applications from scratch or adding blockchain functionality to an existing solution. To support its customers, Oracle has added new features to the platform that help users speed up the development, integration, and deployment of new blockchain applications.

While blockchain can greatly streamline many existing processes surrounding supply chain, identity, cross-border payments, and fraud detection, businesses have struggled to implement blockchain networks within their existing ecosystems. Oracle Blockchain Platform addresses this challenge by streamlining the process of building and integrating blockchain applications across diverse business

networks and connecting them into the relevant business processes within these ecosystems.

"Oracle's continued leadership and investment in enterprise blockchain technology ensures that the platform has all of the critical capabilities organizations need to build blockchain applications to handle their most important business transactions," said Frank Xiong, group vice president, Blockchain Product Development, Oracle. "The number of customers already running blockchain applications based on Oracle's blockchain platform is testament to the strength of the technology and the value it brings to a broad range of industries."

Worldwide Customers with Blockchain Apps in Use

Using blockchain applications, Oracle customers are establishing new ways to increase trust in diverse ecosystems and increasing the speed, security and efficiency of a wide range of business processes. Oracle's rapidly growing list of global customers with production deployments on its enterprise-grade blockchain platform include:

- China Distance Education Holdings Limited (CDEL) uses blockchain to share educational records and professional certifications across many educational institutions to help employers and recruiters verify the educational credentials claimed by individuals.
- **Circulor** uses blockchain to track conflict minerals from their origin at the mines to processing and use in electronic components to ensure ethical sourcing of raw materials.
- **SERES** uses blockchain to bring greater trust and efficiency to electronic invoicing in franchise networks, which share ordering and fulfillment data between franchisors and franchisees.
- Additionally, Arab Jordan Investment Bank, CargoSmart, Certified Origins, HealthSync, ICS
 Financial Systems, NeuroSoft, Nigeria Customs, OriginTrail, SDK.Finance, and TradeFin have
 built or integrated production-ready blockchain applications on Oracle Blockchain Platform.

"Oracle's blockchain solution delivers enterprise performance, security and scalability right out-of-the-box," said Doug Johnson-Poensgen, CEO and founder of Circulor. "We started with the Oracle Blockchain Platform four months ago and were able to go from zero to a production system spanning multiple organizations involved in ethical sourcing of minerals within a matter of months. Another key advantage is that we were able to integrate Oracle's blockchain platform into a hybrid blockchain network spanning multiple clouds and easily integrate with our existing systems and applications."

"Blockchain improves the trust relationship between franchisor and the franchises by including best practices and decentralized access to the transactions. Normally, merchandise acceptance processes are manual and require an operator entering the data into the system. But, for example when a franchise has economic problems, it can repudiate that delivery, saying that it never received the merchandise. They can manipulate the database and, on the other hand, also the franchisor can manipulate it," said José María Mínguez Gutiérrez, Transactional Services Manager of SERES. "With blockchain and its immutability and traceability of information, all these problems disappear and all parties can trust the data and the transactions."

Enhances Security, Developer Productivity and DevOps Capabilities

With this latest release, Oracle has added unique developer-oriented productivity enhancements and consortium-oriented identity management features, which are critical to diverse organizations conducting business transactions via a blockchain network. New DevOps capabilities make the platform

easier to integrate with existing business and IT systems. Additionally, as blockchain becomes an important data store in the enterprise, the platform enables Oracle Autonomous Data Warehouse customers to transparently capture blockchain transaction history and current state data for analytics and to integrate it with other data sources. New features include:

- Enhanced world state database to support standard SQL-based ledger queries reducing the complexity of developing chaincode using readily available programming skills, ensure smart contracts can safely rely on the query results, which are verified at transaction commit, and significantly boost performance of rich data queries.
- **Rich history database** shadows transaction history into a relational database schema in the Autonomous Data Warehouse or other Oracle databases, which transparently enables analytics integration for interactive dashboards and reports.
- Enhanced REST APIs for event subscription, blockchain administration/configuration, and monitoring of network health, transaction rates, and other statistics, which simplify integration with existing enterprise IT tools.
- **Identity federation** further extends authentication capabilities to work with external identity providers to facilitate consortium blockchains with many diverse participants using their existing identity management systems.
- **Third-party certificate support** for registering client organizations on the blockchain network to enable them to use existing certificates issued by trusted third parties.
- **Hyperledger Fabric 1.3** support, which adds many new features based on the evolving open source version, including chaincode development in Java, further leveraging existing enterprise skills, and support for private transactions among a subset of members, preserving privacy and business confidentiality. This demonstrates Oracle's commitment to stay current with the Hyperledger community by leveraging new releases and contributing to the open source community.

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Secure Thingz Supports the Acceleration of IoT Market Growth by Making Security Easier to Implement

13 February 2019

Secure Thingz is addressing the security gap in the IoT market by making best-in-class security solutions easier to implement, starting with availability of its Embedded Trust and C-Trust software tools.

Building in security from the start of the design process is widely acknowledged as the optimal approach to tackling security challenges, and it starts with the creation of a security context that defines the application security. Embedded Trust is a security development environment, which simplifies the configuration of security, from the root of trust and key storage for a connected device to the creation of security profiles and projects. It leverages the secure hardware created by leading silicon providers, such as Microchip Technology Inc., Renesas Electronics Corporation, NXP Semiconductors N.V., and Cypress Semiconductor Corp., to provide the low-level trust anchors and secure services needed for

trustworthy IoT solutions.

Implementation of good security has traditionally been a challenge as it is not a core competency of most developers. With that in mind, Secure Thingz and IAR Systems are introducing C-Trust, a new product that streamlines security implementation by making it part of a developer's existing workflow. Extending security implementation from Embedded Trust to every application developer, C-Trust is offered as an extension to the industry-leading embedded development toolchain IAR Embedded Workbench. The integration enables designers to include security development as part of their day-to-day development workflow and more easily implement "security from inception" into their IoT device design.

"More and more companies are recognizing that the continued growth and success of the IoT market is predicated on a need for increased, scalable security," said Haydn Povey, founder and CEO of Secure Thingz. "With Embedded Trust, we are providing a state-of-the-art security solution, then making it easier for developers to implement through C-Trust. Leveraging the expertise of Secure Thingz, IAR Systems and leading semiconductor companies, we are building a secure and sustainable future for connected devices, and transforming an entire industry."

Currently, a lack of strong security is seen as inhibiting broader proliferation and adoption of IoT devices. According to ABI Research, by 2022, an estimated 70 percent of the world's 57 billion connected devices will be targeted for the IoT, yet today, less than four percent of new devices have embedded security. Furthermore, the huge lack of availability of software developers with cybersecurity skills continue to limit the availability of solutions, better tools and infrastructure for the engineering majority to leverage.

To address these next-generation security requirements, Embedded Trust delivers a set of security features and capabilities at the inception of the project, including:

Secure device support leveraging hardware trust anchors Integrated identity, ownership and certificate management Scalable Secure Boot Manager enabling secure lifecycle management Secure deployment with integrated manufacturing mastering Release management with versioning and update infrastructure

Embedded Trust enables companies to define how their certificate hierarchies will span across multiple product ranges, while enabling the creation of a product device framework that can be dynamically resolved and injected at manufacturing time. It enables customization of a Secure Boot Manager to achieve the level of security suitable necessary for all kind of device applications.

C-Trust enables application developers to deliver code that is secured and encrypted. The broad development team leverages C-Trust to easily import the organization's security configuration profile, without potentially compromising it.

By enabling security implementation into the workflow and supporting the hardware of various semiconductor providers, the Secure Thingz solutions gives choice to the device companies and their developers to define the security that is best suited for their intended application. This approach will lead to a more secure IoT.

"With the rapid proliferation of IoT nodes, the pressure on time to market leaves customers limited opportunity to sufficiently explore their options for security," said Rod Drake, vice president of Microchip's MCU32 business unit. "Microchip recognizes customers have scalable requirements when it comes to securing applications, and we are working with them to integrate security early in the design cycle. Our partnership with Secure Thingz eases and expedites the security design process for

customers."

"Security is the biggest design challenge facing our customers today. Designing a reliable and secure complex embedded system brings many challenges, and companies will increasingly need to make security a foundation of their product and design philosophy," said Daryl Khoo, vice president of Product Marketing, IoT Platform Business Division, Renesas Electronics Corporation. "The Renesas and Secure Thingz partnership actually starts with having robust, safe and secure MCUs from Renesas, along with Secure Thingz solutions to help our customers accelerate IoT growth by enabling collaboration across the supply chain for easier delivery and implementation of secure, embedded applications through an end-to-end solution."

"The internet is changing the way we interact with devices, and NXP wants to ensure our customers are prepared with everything they need to develop smart, connected and secure things for the IoT," said Joe Yu, vice president and general manager, Low-power MPU and MCU product lines at NXP. "NXP's end-to-end portfolio, insight and partner ecosystem empower our customers to design cutting-edge solutions. NXP is committed to enabling secure connections for a smart world, and we are pleased to work with Secure Thingz to make security easier to implement."

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