

**Manufacturing Automation
Leaders Collaborate:
Optimizing Industrial Production
Through Analytics**

For Immediate Release

TOKYO, --- April 18, 2016 ---FANUC CORPORATION, the world's leading supplier of robotics and factory automation, is collaborating with Cisco, the worldwide leader in IT-enabled digitization, as well as Rockwell Automation, the world's largest company dedicated to industrial automation and information solutions, and Preferred Networks, a leading provider of Artificial Intelligence solutions. The companies will work together on the development and deployment of the **FANUC Intelligent Edge Link and Drive (FIELD) system**, a platform that connects not only Computer Numerical Control machines (CNCs) and robots, but also peripheral devices and sensors – to deliver analytics that optimize manufacturing production.

The FIELD system will be a platform for the delivery of advanced analytics for FANUC CNCs, robots, peripheral devices, and sensors used in automation systems. It will drive improved machine reliability, quality, flexibility, and speed – elevating the Overall Equipment Efficiency (OEE) and increasing manufacturing profitability. It will also provide advanced machine learning and deep learning capabilities. By working with Cisco, Rockwell Automation, and Preferred Networks – FANUC will offer a complete solution including network and compute infrastructure, applications, and an enabling middleware platform. With this open platform -- application developers, sensor and peripheral device makers, system integrators, and others can build solutions that improve equipment efficiency, manufacturing output, and quality.

Extension of Current Successes

The FIELD system extends the success of the existing FANUC ZDT (Zero Downtime) connected robots project; ZDT is built with Cisco cloud, IOT data collection software, and end-to-end security capabilities.

The companies are working together to implement systems for major automotive manufacturers by leveraging the Allen-Bradley Stratix Ethernet switches from Rockwell Automation to connect robots to a Cisco Unified Computing System (UCS) – all of this running on FANUC and Cisco's ZDT Data Collection software. Automotive customers who have implemented this system are quickly realizing a significant decrease in production downtime as well as increased cost savings.

-more-

Intelligent Manufacturing

The FIELD system will bring the power of advanced machine learning and artificial intelligence into the hands of customers and application developers -- driving manufacturing to a new level of productivity and efficiency. FANUC and Preferred Networks have established these new technologies for applications such as Bin Picking robots, anomaly detection, and failure prediction. The FIELD system combines both artificial intelligence and edge-computing technologies – enabling distributed learning. Data is generated from robots and machines and is processed in real time at the edge of the network. This allows those devices to intelligently coordinate and collaborate in a flexible manner – resulting in sophisticated manufacturing practices not before possible.

Who provides What for the FIELD System?

FANUC: Provides CNCs and robots with embedded sensors to track key variables required to improve machine reliability, quality, and speed.

FANUC, Cisco and Preferred Networks: Provides enabling middleware Platform Software, as well as security and application lifecycle management applications. It will also leverage Preferred Networks' open deep learning framework (Chainer), IoT Stream Engine (SensorBee) – and other advanced machine learning libraries within its Deep Intelligence in-Motion (DIMo) platform.

Cisco and Rockwell Automation: Provides networking, compute and security infrastructure to connect the robots, CNCs, and other cell equipment to the FIELD applications. Based on the Rockwell Automation and Cisco collaboratively developed Converged Plantwide Ethernet (CPwE) architecture – this further drives improved security, connectivity, flexibility, and scalability – all of which allows connection from a single, small cell to a large factory with hundreds of cells.

FANUC, Rockwell Automation and Preferred Networks: Delivers the initial Application Software on top of the FIELD middleware and infrastructure platform. This will extend the LINK-i and ZDT applications currently deployed, along with additional deep learning applications from the FANUC and Preferred Networks partnership. It is planned that Rockwell Automation manufacturing software products (including FactoryTalk View, FactoryTalk VantagePoint, and FactoryTalk Production Center) will seamlessly integrate with the FIELD system to speed deployment.

-more-

LEADERSHIP QUOTES

Sujeet Chand, Senior VP and CTO, Rockwell Automation

“By collaborating with world class companies, Rockwell Automation helps maximize manufacturers’ investments by leveraging the data from their intelligent devices they are using today to drive an enterprise-wide analytics strategy. With a secure scalable compute approach to analyze this data – from device to the enterprise – users can improve operations and make more informed decisions tailored to meet the needs of their organizations.”

Rowan Trollope, SVP IoT and Applications, Cisco

“This collaboration represents a historic shift in the industry, with IoT, industrial automation and machine learning coming together to make the factory of the future a reality. It’s been talked about for years, but now it is really happening. Cisco couldn’t be more thrilled to be a part of this effort, one that will be key to our positioning in other industries that want to realize the benefits of digitization.”

Toru Nishikawa, CEO, Preferred Networks

“PFN is excited that this collaboration will further accelerate the advancement of the manufacturing industry. Since the start of our work with FANUC, leveraging machine learning and artificial intelligence has been aimed not only at making machines and robots smarter, but also towards a continuous improvement of manufacturing productivity through intelligent real-time coordination and collaboration between robots and machines. We are confident that FIELD will play a central role in making that vision a reality.

###

About FANUC CORPORATION

FANUC CORPORATION, headquartered at the foot of Mt. Fuji, Japan, is the global leader and the most innovative manufacturer of Factory Automation, Robots and ROBOMACHINE’s in the world. With 252 offices in 46 countries, FANUC provides world-class service and support to customers globally. Since its inception in 1972, FANUC has contributed to the automation of machine tools as a pioneer in the development of computer numerical control equipment. FANUC technology has been a leading force in a worldwide manufacturing revolution, which evolved from the automation of a single machine to the automation of entire production lines. For more information visit: <http://www.fanuc.co.jp/eindex.htm>.

-more-

About Cisco

Cisco (NASDAQ:CSCO) is the worldwide leader in IT that helps companies seize the opportunities of tomorrow by proving that amazing things can happen when you connect the previously unconnected. For ongoing news, please go to <http://thenetwork.cisco.com>.

About Preferred Networks

Preferred Networks Inc. (PFN) is a Tokyo-based startup focusing on applications of latest artificial intelligence technologies to emerging problems in the Internet of Things (IoT). PFN's vision is the realization of Deep Intelligence - a future IoT in which all devices, as well as the network itself, are intelligent. PFN develops software related to deep learning and IoT, and provides Deep Intelligence in-Motion solutions. PFN collaborates with many world-leading companies in industries, such as FANUC for intelligent robots and Toyota motors for autonomous driving. For more information please visit: www.preferred-networks.jp

FANUC America Corporation PR contact:

Cathy Powell
Industry Marketing Manager – Robotics and ROBODRILLS
FANUC America Corporation
T: 248-377-7570
E: cathy.powell@fanucamerica.com

Susan Haddad
Corporate Marketing Manager
FANUC America Corporation
T: 248-276-4145
E: susan.haddad@fanucamerica.com

Cisco PR contact:

Kristen Palazzolo
Public Relations, IoT and Digital Industries
Cisco Marketing and Communications
T: 408-525-7974
E: krpalazz@cisco.com