Emerson Network Power, Lenovo and OSIsoft Deliver Integrated Data Center Ecosystem, Driving Operational Efficiency for IoT Platforms and Edge Computing

First integration of Redfish with infrastructure systems enables delivery of the metrics that drive business decisions and simplify management

San Francisco, Calif. [August 16, 2016] – Industry leaders Emerson Network Power, Lenovo and OSIsoft today demonstrated the practical application of Redfish-based technology, designed to speed up and improve the real-world implementation of Internet of Things (IoT) platforms in edge computing environments. The integrated system, which enables full visibility and control across all systems through a REST-based Redfish API, represents the first application of Redfish beyond out-of-band server management.

The companies made the joint announcement at the start of the Intel Developer Forum being held this week in San Francisco. Emerson Network Power is exhibiting at the conference.

The system addresses the need for operational efficiency at the network edge where banking, manufacturing, healthcare and retail operators are challenged to enable connectivity and continuity of services across multiple sites not designed to host IT infrastructure. The convergence of Emerson, Lenovo and OSIsoft technologies address these challenges by increasing security, accelerating speed of deployment, simplifying life cycle management, minimizing downtime and keeping total cost of ownership low through modern and easy-to-use REST APIs.

“Data center operators managing cloud environments and remote facilities continue to be challenged by the various protocols used across systems,” said Patrick Quirk, vice president of Converged Systems at Emerson Network Power. “With this integrated system, we’ve demonstrated the viability and value of a simple-to-deploy connectivity engine that resolves
protocol differences and accelerates the use of Redfish to support holistic management and closed-loop control.”

The system uses the Emerson Network Power SmartCabinet™, pre-integrated with power, sensor and communication infrastructure, to support two Lenovo System x3550 M5 servers adapted with RESTful APIs through the Emerson Connectivity Engine. A REST-enabled IoT gateway provides the system dashboard, overall system management and aggregation of data from servers, thermal and power equipment, sensors and security apparatus.

**Lenovo System x servers** and Flex System compute nodes embed the Integrated Management Module II (IMM2), a highly secure service processor used to discover, track, and monitor system inventory, and to manage system configuration, firmware, and virtual addressing. New Redfish compliant REST APIs deliver modern, secure, and scalable remote, out-of-band access to IMM2 from external IT applications. Initial IMM2 REST API support focuses on server management functions.

“We’re committed to helping establish Redfish as an industry standard to empower a modern, simplified and scalable software-defined approach to data center management,” said Greg Pruett, executive distinguished engineer, System Technology Innovation Center at Lenovo Data Center Group. “This solution demonstrates that the technology is available today to make that a reality.”

The use of the Emerson Connectivity Engine between the OSIsoft PI System and the gateway allows the PI System to serve as the system’s data of record to provide insight and analytics. This includes the calculation and visualization of an Information Efficiency metric showcased for the first time at the Intel Develop Forum.

“The true potential of a software-defined data center can only be realized with the integration of information technology and operational technology across the entire ecosystem.” said Martin Otterson, senior vice president of sales, marketing, and industries at OSIsoft, LLC. “This becomes possible through the ability to adapt legacy systems to the DMTF Redfish specification and aggregate data from multiple gateways in a scalable system of record such as that provided by the PI System.”
For more information on the integrated system and Emerson Network solutions, visit EmersonNetworkPower.com.

# # #

About Emerson Network Power
Emerson Network Power, a business of Emerson, is the world’s leading provider of critical infrastructure technologies and life cycle services for information and communications technology systems. With an expansive portfolio of intelligent, rapidly deployable hardware and software solutions for power, thermal and infrastructure management, Emerson Network Power enables efficient, highly-available networks. Learn more at www.EmersonNetworkPower.com.

About Emerson
Emerson (NYSE: EMR), based in St. Louis, Missouri (USA), is a global leader in bringing technology and engineering together to provide innovative solutions for customers in industrial, commercial, and consumer markets around the world. The company is comprised of five business segments: Process Management, Industrial Automation, Network Power, Climate Technologies, and Commercial & Residential Solutions. Sales in fiscal 2015 were $22.3 billion. For more information, visit Emerson.com.

About Lenovo
Lenovo (HKSE: 992) (ADR: LNVGY) is a $46 billion global Fortune 500 company and a leader in providing innovative consumer, commercial, and enterprise technology. Our portfolio of high-quality, secure products and services covers PCs (including the legendary Think and multimode YOGA brands), workstations, servers, storage, smart TVs and a family of mobile products like smartphones (including the Moto brand), tablets and apps. Join us on LinkedIn, follow us on Facebook or Twitter (@Lenovo) or visit us at www.lenovo.com.

About OSIsoft, LLC.
OSIsoft creates technology that lets people transform their world through data. Our PI System captures operational data from sensors, manufacturing equipment and other devices and transforms it into rich information streams that can be used to reduce costs, optimize production or make critical business decisions. Worldwide, more than 1.5 billion sensor-based data streams are managed by the PI System. Founded in 1980, OSIsoft has over 1,200 employees and is headquartered in San Leandro, California. For more, please visit www.osisoft.com.