

Artesyn Announces SIL4 Certification for ControlSafe™ COTS Rail Safety Platform

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Fail-safe, fault-tolerant system for train control and rail signaling accelerates time-to-market for rail application developers TEMPE, Ariz. [16 August, 2016] — Artesyn Embedded Technologies today announced Safety Integrity Level 4 (SIL4) certification for the Artesyn Embedded Computing, Inc. **ControlSafe™ Platform (CSP)** with ControlSafe™ Computer (CSC) and ControlSafe™ Software, one of the first embedded computing systems to use commercial off-the-shelf (COTS) components to create a fail-safe and fault-tolerant computing platform for a wide range of train control and rail signaling applications. The ControlSafe Platform enables rail application developers and system integrators to substantially accelerate time-to-market without being deterred by the potentially high costs and risks associated with the stringent SIL4 system development and certification process, a process that can take multiple years to accomplish. Artesyn will demonstrate the ControlSafe Platform at the **InnoTrans exhibition** (Hall 6.1, booth 226) in Berlin, Germany between September 20th and 23th, 2016. Linsey Miller, marketing vice president, Artesyn Embedded Technologies, said: “We have been working closely with a number of leading rail integrators to develop this new product to ensure it effectively addresses their pain points and can significantly shorten their time-to-market. With this SIL4 certification issued by TÜV SÜD, one of the most trusted certification bodies worldwide, we are showing a commitment to rail industry customers with an unmatched, highly reliable platform with 15 years of planned product life and 25 years of extended support and service available.” Designed to deliver best-in-class platform hardware availability of six nines (99.9999%)¹, Artesyn’s ControlSafe Platform is designed to meet the functional safety, reliability and availability requirements mandated by rail standards and specifications. This makes Artesyn’s ControlSafe Platform ideal for deployment in safety application environments to protect investment in rail infrastructure. It uses a data lock-step architecture that supports high performance modern processors, and is modular, scalable and designed to seamlessly accommodate additional I/O interfaces as well as new processor architectures throughout the product life cycle. In addition, the ControlSafe Platform’s hardware-based voting mechanism maximizes software transparency to allow rail application developers to migrate existing application software with minimal modifications. The ControlSafe Platform consists of two

redundant ControlSafe Computers (CSCs), each of which delivers highly available fail-safe operation. They are linked by a Safety Relay Box (SRB) or Direct Connect Algorithm (DCA) that monitors the health of the two CSCs, designates one as active and the other as standby, and controls fail-over operation between the two CSCs to deliver a fail-safe fault tolerant computer system. Deployable in both wayside and carborne applications, the ControlSafe Platform is designed to support a broad range of I/O modules such as CAN, Ethernet, Ethernet Ring, UART, MVB, digital, analog and GPS/Wireless to enable solution integrators to handle both new deployments and upgrade projects easily. Artesyn has also cooperated with customers on specific I/O solutions to meet unique application requirements. 1 For Artesyn provided hardware and software and assuming 4 hours mean-time-to-repair (MTTR) About Artesyn Embedded Technologies Artesyn Embedded Technologies is a global leader in the design and manufacture of highly reliable power conversion and embedded computing solutions for a wide range of industries including communications, computing, medical, military, aerospace and industrial. For more than 40 years, customers have trusted Artesyn to help them accelerate time-to-market and reduce risk with cost-effective advanced network computing and power conversion solutions. Artesyn has over 20,000 employees worldwide across ten engineering centers of excellence, four world-class manufacturing facilities, and global sales and support offices.

