Case Study: Artesyn's Collaboration With Hyukshin Engineering Company Limited

Artesyn Embedded Technologies is collaborating with Hyukshin Engineering, a leading rail integrator in South Korea, for the development of rail signaling solutions based on Artesyn's ControlSafe™ Platform.

Hyukshin Engineering is developing a newly upgraded Computer Based Interlocking (CBI) product using Artesyn's SIL4 ControlSafe™ Expansion Box, which is perfect for large station applications. This new CBI application is designed to meet reliability, availability, maintainability, and safety (R.A.M.S.) requirements of railway and metro operators around the world for assuring safety to millions of people riding railway and metro every day.

Product development is expected to complete in 2018 with application certification soon after. Using Artesyn's ControlSafe product line has allowed Hyukshin Engineering to speed time to deployment of interlocking systems in the Donghae Line of six stations including Bujeon, Ilgwang, Wollae, Namchang, Deokha and Taehwagang stations. Between Bujeon and Taehwagang Stations, it is double tracks with a distance of 65.7 km.

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Hyukshin was awarded the contract by KRNA (Korea Rail Network Authority) in December 2017. This highlights the confidence of the authority in Hyukshin's technology that has allowed for safe and reliable routing of trains since 1995.

Victor Seunghyun Park, global marketing director at Hyukshin Engineering, said: "The adoption of the SIL4 safety standard is a global trend in the rail industry. Throughout the 60 years of Hyukshin's history we have been dedicated to serving our end customers with highly safe and reliable solutions without compromise. Artesyn's ControlSafe™ Platform provides an application-ready, cost-effective solution that can help us substantially accelerate time-to-market for our next generation computer-based interlocking (CBI) systems. By adopting the platform as a safety computing engine, we do not have to start our development from scratch, and therefore we can focus on the differentiation and value that makes Hyukshin a leading player in the industry. More importantly, we can significantly reduce the costs and risks of the SIL4 system development and certification process, saving potentially millions of dollars and many years."

The Hyukshin CBI application can be seen in person at InnoTrans in Hall 5.2 101.

About Artesyn's ControlSafe™ Platform

Artesyn's ControlSafe Platform is designed to meet rail functional safety, reliability and availability requirements, which makes it ideal for deployment in safety application environments to protect investment in rail infrastructure.

The first three platforms in the family, ControlSafe Platform, ControlSafe™ Expansion Box Platform and ControlSafe™ Carborne Platform, have been certified to SIL4 by TÜV SÜD, one of the most trusted certification bodies worldwide. A shared safety architecture makes it easy to transfer applications between the three and deploy as a common platform. This innovative data lock-step architecture and hardware-based voting mechanism 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 that will be required throughout the product life cycle.

About Hyukshin Engineering Co., Ltd

Established in 1955, Hyukshin Engineering Co., Ltd has been a key player in the growth of Korea's electronics and telecommunications industries. Hyukshin specializes in automated signal systems for railway & subway to insure safe and effective rail service. Hyukshin performs across the value chain from technology development, design, and manufacture to installation and maintenance. Hyukshin has made and installed more than 200+ interlocking systems including Seoul stations, Korea Seoul-Incheon Int'l Airport line and Kazakhstan Almaty metro.
http://www.hyukshin.co.kr/

About Artesyn Embedded Technologies

Artesyn Embedded Technologies is a global leader in the design and manufacture of power conversion and embedded computing solutions for a range of industries including communications, computing, consumer electronics, medical, military, aerospace and industrial.

Leveraging over 30 years of expertise in developing highly reliable and available embedded computer systems, Artesyn is a premier supplier of commercial off-the-shelf (COTS) fault-tolerant computer systems to rail system integrators and rail application providers.

With that long experience comes a deep understanding of our customers' requirements for on-time, consistent and high quality product coupled with excellent customer support. We deliver on all counts from our own world-class factory and seasoned support experts.

Artesyn strives to speed our customers' time to revenue and make your development process as easy as possible. Products features are supported globally with local system architects and FAEs to keep you on schedule.

We're very flexible and agile. We recognize that you may need your system to have your own unique branding. No problem. We're used to that. We have services that allow you to define the look and feel that's consistent with your company's branding and aesthetic standards.

Our flexibility isn't just limited to look and feel. Integration services, unique support requirements, longevity of supply, drop shipments and many more services are designed to make it easy to do business with us and quick for you to get to market and deploy smoothly.

For more than 40 years, customers have trusted Artesyn to help them accelerate time-to-market and shift development efforts to the deployment of new, value-add features and services.

Headquartered in Tempe, Arizona, Artesyn has over 15,000 employees worldwide across multiple engineering centers of excellence, wholly-owned world-class manufacturing facilities, and global sales and support offices.

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