

## System of Systems Engineering Collaborators Information Exchange (SoSECIE)

September 13, 2022  
11:00 a.m. to Noon Eastern Time

### Case Study: Using Digital Threads in a large System of Systems (SoS) for System Certification

*Presenter: Oliver Hoehne*

#### Abstract

This webinar will provide a case study on how the California High-Speed Rail System (CHSRS) is preparing for system certification throughout the systems development life cycle, demonstrating to the Federal Railroad Administration (FRA) that the system will be safe, secure, and ready to operate. CHSRS is multi-billion-dollar program delivered in several independently designed and constructed civil works, track and systems, trainsets, train operator and other projects, exhibiting the typical system of systems (SoS) challenges. Currently, CHSRS is under construction along approximately 119 miles with three active civil works contracts designing and building over 225 structures. The webinar will address from an SoS perspective the system certification challenges faced, and the SoS engineering activities performed, and summarizes the achieved outcomes and conclusions as of today. Insights will be provided into the tracking of CHSRS program (SoS) requirements throughout the individual project life cycles (constituent systems), and by providing safety and security requirement examples, will describe how digital threads are used to the hundreds and thousands of the design, construction, and inspection and testing artifacts to make the successful case that the CHSRS can be certified for safe and secure passenger operation.

#### Biography

Oliver Hoehne is a Technical Fellow, Systems Engineering, a Project Manager, and the U.S. Global Technical Excellence Sector and Practice Lead on Systems Engineering, Communications and Control Systems for WSP, a company with 30,000+ employees, in 500 offices across 39 countries. Mr. Hoehne is a Project Management (PMP) and Systems Engineering Professional (CSEP) with over 20 years of extensive international and domestic experience in Software and Systems Engineering across industries, and has worked in leading Systems Engineering, Integration & Testing (SEIT) roles on several multi-billion-dollar programs.

