Secure Infrastructures

Modern sea as well as domestic ports are more and more controlled by IT-systems. Each of the players involved in port operations (like terminal operator, shipping companies, forwarder, port authorities, or customs) maintains its own IT-infrastructure that is loosely connected to the other players. As the frictionless operation of such harbors is of eminent importance for national economy, so is the security and resilience of the IT-infrastructure controlling these harbors. The cost for neglecting IT-security have become apparent only recently when a virus attack on a large shipping company caused damages of several hundred million Euros.

Umfassende Sicherheitsarchitektur für den Hafenverbund

The project SecProPort, funded with about 2.8 Mill€ by the German Federal Ministry of Transport and Digital Infrastructure, aims at the development and the prototypical realization of a general and embracing IT-security architecture for transport and port communication systems used in harbors. These systems combine various heterogeneous actors like, for instance, port authorities, logistic companies, ship owners, terminal owners. The architecture will support the various and heterogeneous security requirements of the workflows running in this environment. This comprises the security of workflows against sabotage, (e.g. the intrusion of attackers into individual process steps ) as well as the espionage of confidential data by observing the visible behavior of the system. This aspect of confidentiality relates to responsibilities of public administrations as well as sensitive assets of commercial actors.

The consortium is a balanced mix of actors operating in the harbor environment – dbh Logistics IT AG (operator and SW-developer of a port community system), Hapag-Lloyd AG (shipping company), BLG LOGISTICS GROUP AG & Co. KG logistic company) and Duisburger Hafen AG (harbor authority) – an evaluation body in the area of IT-security: datenschutz cert GmbH, as well as several research institutes DFKI, Institut für Seeverkehrswirtschaft und Logistik (ISL) and University of Bremen. The project started 2018/11/1 and is running for 3 years.

Duration 11/2018 – 10/2021

Partner:

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