INDUSTRIAL RISK MANAGEMENT
DIGITAL INDUSTRY NEEDS CUSTOMIZED IT SECURITY

Fraunhofer Institute for Secure Information Technology SIT

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In the digitized industry IT security is absolutely essential to protect production plants, industrial control systems, infrastructures and company secrets against IT based attacks. Safeguarding IT systems, however, is expensive and budgets are limited. Fraunhofer Institute for Secure Information Technology SIT supports companies and providers in creating tailored security concepts in order to use IT security budgets in an efficient manner to achieve the best possible results. Fraunhofer SIT uses a production-friendly method for threat modeling.

Industrial installations, production and commercial processes are digitalized and intricately interconnected. On the one hand, this results in an immense potential for optimization in the value chain. On the other hand, an attack on complex IT may cause enormous damage anywhere in the system, in a worst case scenario even endangering human lives. In industry, IT security is thus a topic keeping not only the CIOs of large enterprises, network and other infrastructure providers busy, but also those of smaller factories.

A threat and risk analysis helps to identify specific threats and invest budgets target-oriented for IT security. In other areas, such as the IT industry, strategies and tools for threat analyses already exist. However, these do not take the specific requirements of the various industrial systems into account – a car manufacturer will most certainly have different security requirements than a water supply works or a medium-sized supplier company.

IT Security Budgets for Efficient Protection

The Fraunhofer SIT is offering risk management specifically for industrial customers. First, the individual protection needs will be determined: business processes and IT architectures will be analyzed, corporate values captured and protection targets provided. A threat analysis will give an overview of possible weaknesses and targets, followed by an evaluation of their risk to the company or the production process. Based on this inventory the Fraunhofer SIT experts will develop a customized IT security concept geared exactly to the customer's specific requirements and needs.

Our Offer:

The production-friendly method of Fraunhofer SIT consists of a three-step approach to threat modeling:

- Information retrieval
- Identification of the need for protection
- Threat analysis

The experts of Fraunhofer SIT have already modeled threats and risks for demonstrators of BOSCH, Duravit, Nobilia, Trumpf and VW as a part of the industrie 4.0 project IUNO – national reference project on IT security in industrie 4.0.