Product-level Security Goals

Revision

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SME

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Abstract

This document describes the product-level security goals.

Group / Owner

Security / Security Architect

Motivation

When creating a safety-critical cyber-physical system, it is insufficient to have arbitrary cybersecurity requirements. Those requirements need to be motivated by overarching goals which justify them. In turn these goals must derive from cybersecurity concepts. Finally, the global security goals are refined and applied at the product level.

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Overview

Product-level security goals need to both consider the global security goals and add constraints necessary to the specifics of the product under consideration.

Product-level security goals provide the justification and traceability for product-level security requirements.

Process

The following diagram illustrates the process used in the creation of product-level security goals:

Inputs	Product-level functional goals global security goals
Outputs	Product-level security goals
Participants	Security SME System SME

product-level security goals analysis
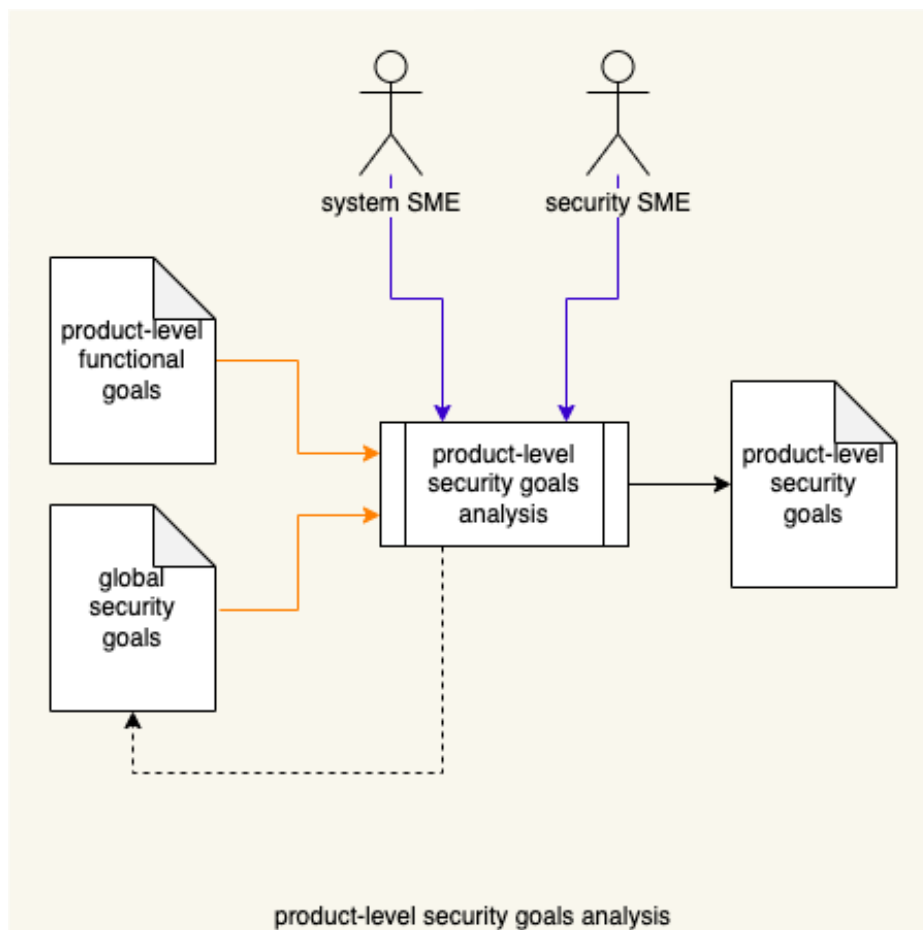
Using the **global security goals**, the Security SME, together with System SME(s), review the **product-level functional goals** and determine the goals appropriate to the product. The **product-level security goals** list is produced. If gaps are identified in the global security goals, it will be updated.

Product Cybersecurity Goals

1. The storage and transmission of data should be secure and should be controlled.
2. The vehicle and its backend supporting systems should be designed to be resilient to cyberattacks.
3. The vehicle and its backend support systems should be designed with the capability to detect cyberattacks and respond appropriately.

Note: These goals were adapted from the UN working group on autonomous vehicle cybersecurity [1].

References

1. UNECE trans WP.29 GRVA 2019 2 - **World Forum for Harmonization of Vehicle Regulations: Proposal for a Recommendation on Cyber Security**
    `https://unece.org/fileadmin/DAM/trans/doc/2019/wp29grva/ECE-TRANS-WP29-GRVA-2019-02e.pdf`