

Preface

Nowadays one of the most important objectives of the nations is the protection of their critical infrastructure against cyber threats. Several countries already issued directives or laws requesting operators of critical infrastructures to fulfill a minimum set of security requirements. The standard IEC 62443 has the objective to cover the various dimensions of industrial security and is therefore a good framework for the development of holistic protection concepts. When I started to work in the area of IT security applied to industrial environments, it became rapidly clear to me that the topic is manifold. Protection against cyber threats requires a number of different, often independent measures. For example you have to pay attention among others to user management, malware protection as well as patch management. Three measures, which are totally independent, but of equal importance. A holistic and sustainable protection of installations in operation requires in general the contribution of product suppliers but also of integrators and operators and integrates technical as well as organizational measures.

As a responsible for standards, regulations and certifications for industrial security I participated actively in the development of the standard IEC 62443. The standard is bulky, reflecting the complexity of the topic. This book is a tentative to facilitate the access to the standard by giving an overview and describing the main concepts which are underlying the standard. These are also the basic principles when designing and deploying protection concepts for installations in operation. It is intended to be useful for decision makers, managers, technical leaders, engineers and technicians as well as for students.

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