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IEC 62443-2-4:2015+AMD1:2017 CSV

Security for industrial automation and control systems, Part 2-4: Security program requirements for IACS service providers (IEC 62443-2-4:2015+AMD1:2017 CSV, IDT)

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PREFACE

This preface, as well as all footnotes and annexes, is included for information purposes and is not part of ANSI/ISA-62443-2-4-2018 / IEC 62443-2-4:2015+AMD1:2017 CSV.

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FOREWORD

This standard is the part of the ISA-62443 series that contains security requirements for providers of integration and maintenance services for Industrial Automation and Control Systems (IACS). It has been developed by IEC Technical Committee 65 in collaboration with the International Instrumentation Users Association, referred to as the WIB from its original and now obsolete Dutch name, and ISA99 committee members.

Prior to reading this document the reader should, at a minimum, be familiar with the basic IACS concepts and terminology which can be found in ISA-62443-1-1 (originally published as an ISA standard ANSI/ISA-99.00.01-2007).

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INTRODUCTION

This standard is the part of the ISA-62443 series that contains security requirements for providers of integration and maintenance services for Industrial Automation and Control Systems (IACS).

Figure 1 illustrates the relationship of the different parts of ISA-62443 being developed. Those that are normatively referenced are included in the list of normative references in Clause 2, and those that are referenced for informational purposes or that are in development are listed in the Bibliography.

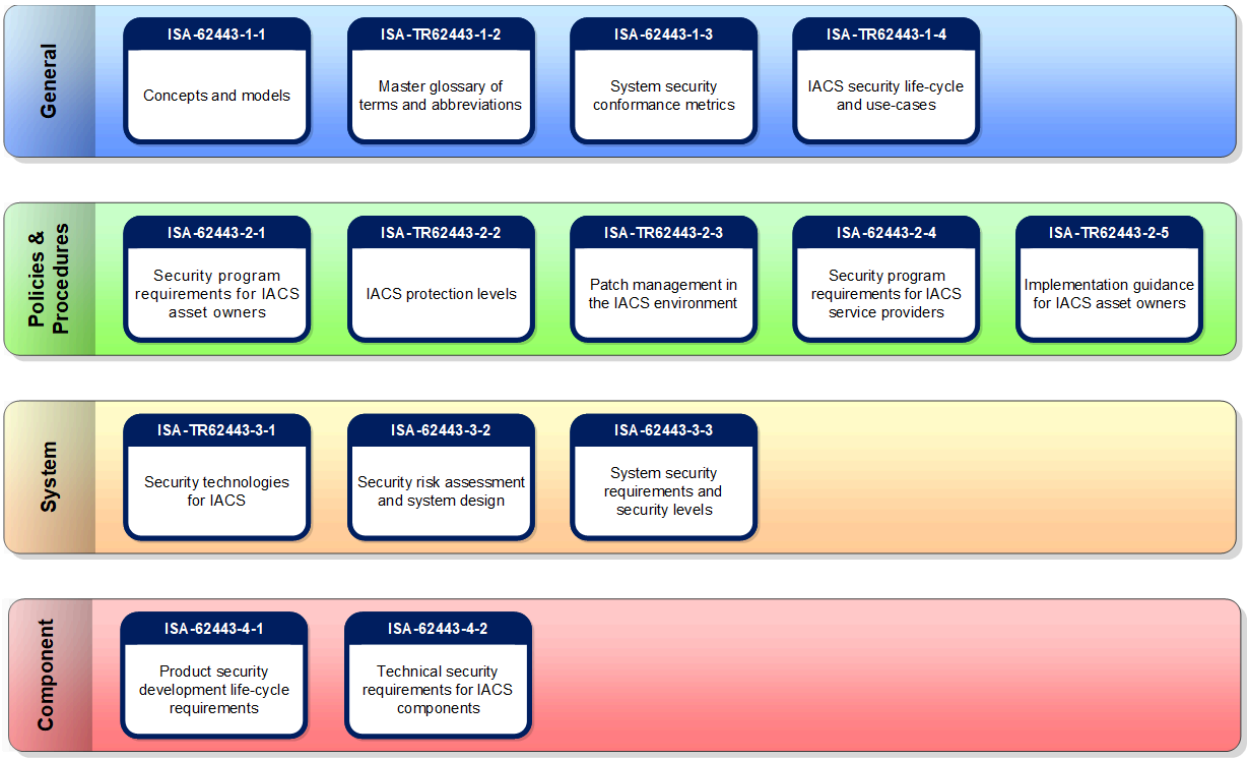

Figure 1 – Parts of the ISA-62443 Series

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1 Scope

This part of ISA‑62443 specifies a comprehensive set of requirements for security capabilities for IACS service providers that they can offer to the asset owner during integration and maintenance activities of an Automation Solution. Because not all requirements apply to all industry groups and organizations, Subclause 4.1.4 provides for the development of Profiles that allow for the subsetting of these requirements. Profiles are used to adapt this document to specific environments, including environments not based on an IACS.

NOTE 1 The term “Automation Solution” is used as a proper noun (and therefore capitalized) in this part of ISA‑62443 to prevent confusion with other uses of this term.

Collectively, the security capabilities offered by an IACS service provider are referred to as its Security Program. In a related specification, ISA‑62443-2-1 describes requirements for the Security Management System of the asset owner.

NOTE 2 In general, these security capabilities are policy, procedure, practice and personnel related.

Figure 2 illustrates how the integration and maintenance capabilities relate to the IACS and the control system product that is integrated into the Automation Solution. Some of these capabilities reference security measures defined in ISA‑62443-3-3 that the service provider must ensure are supported in the Automation Solution (either included in the control system product or separately added to the Automation Solution).

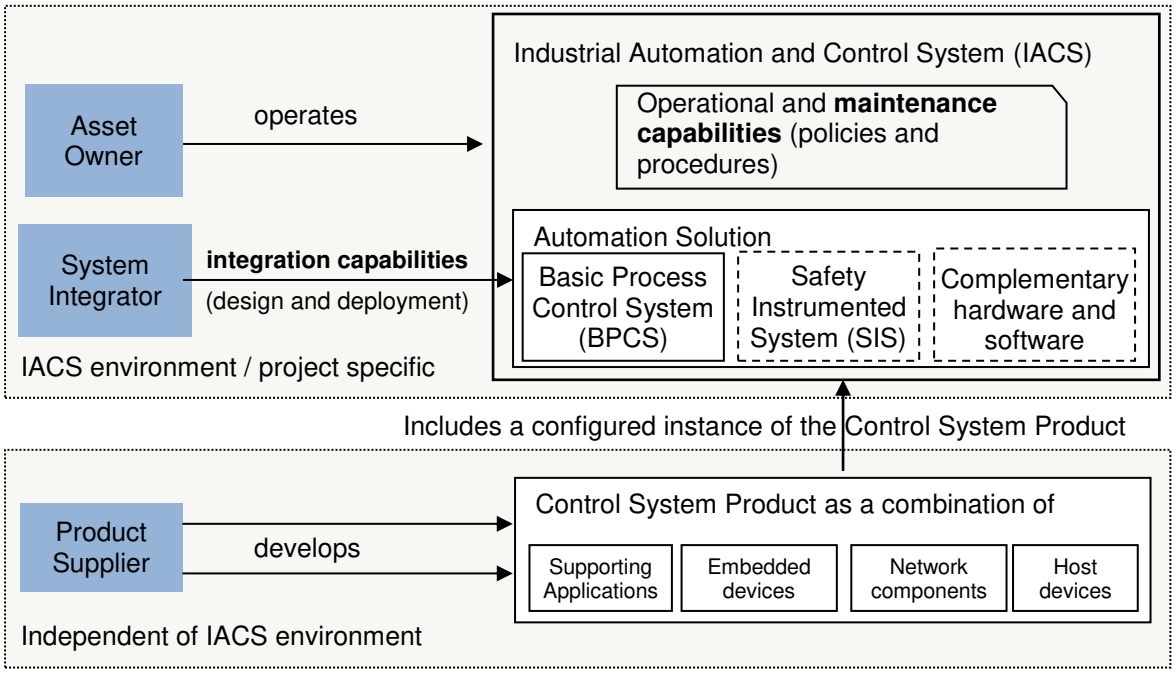

Figure 2 – Scope of service provider capabilities

In Figure 2, the Automation Solution is illustrated to contain a Basic Process Control System (BPCS), optional Safety Instrumented System (SIS), and optional supporting applications, such as advanced control. The dashed boxes indicate that these components are “optional”.

NOTE 3 The term “process” in BPCS may apply to a variety of industrial processes, including continuous processes and manufacturing processes.