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**Information technology — Application  
security —**

**Part 3:  
Application security management  
process**

*Technologie de l'information — Sécurité des applications —  
Partie 3: Processus de gestion de la sécurité d'une application*



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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *Security techniques*.

A list of all parts in the ISO/IEC 27034 series can be found on the ISO website.

## Introduction

### 0.1 General

A systematic approach to integrate security controls throughout the engineering lifecycle provides an organization with evidence that information being used or stored by its applications is being adequately protected.

The ISO/IEC 27034 series assists organizations in integrating security throughout the life cycle of their applications by providing frameworks and processes scoped at organization and application levels.

This document defines the processes required for managing the security of an application identified as processing critical information by the organization.

**Table 1 — ISO/IEC 27034 Framework overview**

Scope	ISO/IEC 27034 framework	What it represents
Organization	Organization Normative Framework (ONF)	One centralized repository of application security information
	ONF Management process	Process is in place to maintain and continuously improve ONF
Application	Application Normative Framework (ANF)	Repository for all ASCs of an application
	Application Security Management Process	A risk based process that uses the ANF to build and validate applications

As shown in [Table 1](#), organization-level framework and process are provided by the Organization Normative Framework (ONF). The ONF, its elements and supporting processes are defined in ISO/IEC 27034-2.

Application-level framework and processes are provided by this document in [Clauses 5, 6 and 7](#). The Application Security Management Process (ASMP) helps a project team apply relevant portions of the ONF to a specific application project and formally record evidence of the outcomes in an Application Normative Framework (ANF).

Processes for determining the application requirements and environment are included in [6.1](#) to [6.5](#). [Subclause 6.1](#) addresses the identification of the application requirements and its environment, assessing the application security risks. Evaluating the application's Targeted Level of Trust is addressed in [6.2](#), creating and maintaining the ANF and Application Security Controls (ASCs) is covered in [6.3](#), and processes pertaining to realizing and operating the application are included in [6.4](#). Finally, [6.5](#) presents a process to verify that the ANF and the ASCs are properly implemented.

### 0.2 Purpose

The purpose of this document is to provide requirements and guidance for the Application Security Management Process and the Application Normative Framework.

### 0.3 Targeted audience

#### 0.3.1 General

Although this document provides best practices for a general audience, it is especially useful for the following actors:

- a) managers;
- b) provisioning and operation team;
- c) acquirers;
- d) suppliers;
- e) auditors;
- f) users.

#### 0.3.2 Managers

Managers are persons involved in the management of an application. Examples of managers are:

- a) information security managers including the Chief Information Security Officer (CISO);
- b) project managers;
- c) product line managers;
- d) development managers;
- e) application owners;
- f) line managers including the Chief Information Officer (CIO), who supervise employees.

Typically, managers need to:

- a) ensure that any application projects, initiatives or processes are based on the results of risk management;
- b) make sure that certain proper information security clearances are in place as required by applicable information security policies and procedures;
- c) manage the implementation of a secure application;
- d) provide security awareness, training and oversight to all actors;
- e) balance the cost of implementing and maintaining application security against the risks and value it represents for the organization;
- f) ensure compliance with standards, laws and regulations according to an application's regulatory context;
- g) ensure the documentation of security policies and procedures for the application;
- h) stay abreast of all application-related security plans throughout the organization's network;
- i) determine which security controls and corresponding verification measurements should be implemented and tested;
- j) authorize the targeted level of trust according to the context specific to the organization;
- k) periodically review the applications for security weaknesses and threats and take corrective and preventive actions;