
**Information technology — Security
techniques — Security guidelines
for design and implementation of
virtualized servers**

*Technologies de l'information — Techniques de sécurité — Lignes
directrices pour la conception et l'implémentation sécurisées des
serveurs virtualisés*





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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	2
5 Overview of server virtualization	3
5.1 Types of server virtualization.....	3
5.2 Components of a VS.....	3
5.3 Technical considerations.....	4
5.3.1 General.....	4
5.3.2 Exclusions.....	4
6 Overview of security threats and risks	5
6.1 General.....	5
6.2 Common threats.....	5
6.3 VS-specific risks.....	6
6.3.1 General.....	6
6.3.2 VM risks.....	6
6.3.3 Hypervisor risks.....	7
6.3.4 Operational risks related to implementation.....	8
6.3.5 Cloud Services risks.....	8
7 Recommendations for secure VS lifecycle	9
7.1 General.....	9
7.2 Initial preparation phase.....	9
7.3 Planning and design phase.....	10
7.4 Implementation phase.....	10
7.5 Disposition phase.....	10
8 Planning and design phase: security considerations	10
8.1 General.....	10
8.2 Security considerations and satisfying requirements.....	11
9 Implementation phase: security checklist	11
9.1 General.....	11
9.2 Security checklist and vulnerability exposure.....	12
Annex A (informative) Risk assessment for VSs	14
Annex B (informative) Guidelines for implementing security checklist items in Table 2	17
Bibliography	22

Foreword

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Introduction

Data centre infrastructures are rapidly becoming virtualized due to increasing deployment of virtualized servers (VSs) for cloud computing services and for internal IT services. Since VSs are compute engines hosting many business-critical applications, they are key resources to be protected in virtualized data centre infrastructure. As VSs are becoming mainstream in typical data centre infrastructure setups, the secure design and implementation of VSs forms an important element in the overall security strategy.

The purpose of this document is to provide security guidelines for the design and implementation of VSs. The motivation for this document is the global trend in enterprises and government agencies deploying server virtualization technologies within their internal IT infrastructure as well as the use of VSs by cloud service providers. Hence the target audience is any organization using and/or providing VSs.

The intended goal of this document is to facilitate informed decisions with respect to architecting VS configurations. Such design and implementation configuration is expected to assure the appropriate protection for all virtual machines (VMs) and the application workloads running in them in the entire virtualized infrastructure of the organization.

Information technology — Security techniques — Security guidelines for design and implementation of virtualized servers

1 Scope

This document specifies security guidelines for the design and implementation of VSs. Design considerations focusing on identifying and mitigating risks, and implementation recommendations with respect to typical VSs are covered in this document.

This document is not applicable to: (see also [5.3.2 Exclusions](#))

- desktop, OS, network, and storage virtualization; and
- vendor attestation.

This document is intended to benefit any organization using and/or providing VSs.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 17788, *Information technology — Cloud computing — Overview and vocabulary*