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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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Foreword

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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*