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Security and service level guidelines for the usage of public cloud computing services

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NOTE

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2. *Compliance with this Technical Reference does not exempt users from legal obligations.*

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Foreword

This Technical Reference was prepared by the Cloud Security Working Group of the Security and Privacy Standards Technical Committee and the IT Governance Technical Committee under the direction of the Information Technology Standards Committee (ITSC). The ITSC endorsed the TR on 6 March 2012.

Cloud computing is the next major technology trend after the client-server paradigm. It uses the Internet as a medium to address IT services needs of businesses via a utility model. While the business benefits are obvious, the same cannot be said for the risks entailed.

This Technical Reference provides the recommended controls and implementation guidelines on information security management for the use of public cloud computing services by end-user organisations. It provides a baseline information security requirement that end-user organisations would expect of any cloud service providers. It also provides a basis for a security audit of the cloud services provided. Hence, this Technical Reference would be useful for cloud service providers to ensure that the services that they provide adhere to a minimum level of security assurance such that cloud service users' interests are protected.

This Technical Reference is not to be regarded as a Singapore Standard. This Technical Reference is made available for provisional application over a period of two years, but does not have the status of a Singapore Standard. The aim is to use the experience gained to modify the Technical Reference so that it can be adopted as a Singapore Standard. Users of the Technical Reference are invited to comment on its technical content, ease of use and any ambiguities or anomalies. These comments can be submitted using the feedback form provided at the end of the Technical Reference and will be taken into account in the review of the publication. At the end of the two years, the Technical Reference will be reviewed by the WG to discuss the comments received and to determine its suitability as a Singapore Standard. Submission for approval by the Standards Council as a Singapore Standard will be carried out only upon agreement after review.

Acknowledgement is made for the use of information from Special Publication 800-145, The NIST Definition of Cloud Computing – Recommendation of the National Institute of Standards and Technology, September 2011 on which Clauses 3 and 5 of this Technical Reference are based.

Attention is drawn to the possibility that some of the elements of this Technical Reference may be the subject of patent rights. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

Technical Reference for security and service level guidelines for the usage of public cloud computing services

1 Scope

The aim of this Technical Reference (TR) is to provide security guidance on the usage of public computing services that conform to ‘Software as a Service’ and ‘Infrastructure as a Service’ models. It also covers the service level guidelines that public cloud users should consider when seeking public computing services.

This TR can be used by:

a) Organisations seeking public cloud computing services and guidance on the security controls and service level considerations for such services; and

b) Public cloud computing service providers intending to demonstrate their best security practices.

It does not include:

a) Private and hybrid cloud computing services;

b) Platform as a Service (PaaS) model;

c) Business specific operations of using public cloud computing services, e.g. users' competency requirements and suitability of cloud computing for specific business functions.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 20000-1	Information technology – Service management – Part 1: Service management system requirements
ISO/IEC 27001	Information technology – Security techniques – Information security management systems – Requirements
Special Publication 800-145, September 2011	The NIST Definition of Cloud Computing – Recommendation of the National Institute of Standards and Technology
SS 507	Singapore Standard for information and communications technology disaster recovery services