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SS 584 : ~~2015+C1:2016~~2020

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Specification for multi-tiered cloud computing security

~~Incorporating Corrigendum No. 1~~

~~Published by~~

Enterprise Singapore

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~~The~~ITSC set up the Technical Committee on Cloud Computing Standards ~~Coordinating Task Force, appointed by the ITSC and responsible for~~ to oversee the preparation of this standard~~,~~. The Technical Committee consists of ~~representatives from~~ the following ~~organisations~~members:

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		Dr Suria P Asai	*Institute of Systems Science*
		Mr Tao Yao Sing	*Infocomm Media Development Authority of Singapore*
		Mr Wong Onn Chee	*Resolvo Systems*
		Mr Martin Yates	*Singapore Computer Society*

~~The Multi-tiered Cloud Security Working Group, appointed by the Cloud Computing Standards Coordinating Task Force to assist in the preparation of this standard, comprises the following experts who contribute in their individual capacity:~~

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	~~Mr Martin Yates~~	~~Singapore Computer Society~~

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The organisations in which the experts of the Working Group are involved are:

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AliCloud
Amazon Web Services
Asia Cloud Computing Association
Association of Information Security Professionals
BSI Group Singapore Pte. Ltd.
Certification Partner Global
Cloud Security Alliance APAC
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Singapore Chinese Chamber of Commerce and Industry
SOCOTEC Certification Singapore
TÜV SÜD PSB Pte Ltd
~~*Resolvo Systems Pte Ltd*~~

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Foreword

This Singapore Standard was prepared by the Multi-Tiered Cloud Security Working Group ~~of~~set up by the Cloud Computing Standards ~~Coordinating Task Force under the direction of the Information Technology Standards~~Technical Committee ~~(~~under the purview of ITSC~~)~~.

Cloud computing shifts away from conventional hosting and delivery of services, to utility-based consumption in both the enterprise and personal space, enabling 'everything-as-a-service'. In the midst of a cloud environment, the traditional IT security models are no longer adequate. An example would be perimeter security which has been appropriate for conventional on-premise IT systems but is often inadequate for the cloud. The cloud environment shifts the ownership of security to a shared responsibility model. An example would be physical security controls of data centres, which would traditionally be operated and managed by an organisation, whereas for a cloud ~~User~~service customer (CSC), these controls now become the responsibility of the Cloud Service Provider (CSP).

This Singapore Standard aims to foster and encourage the adoption of sound risk management and security practices for cloud computing, by providing relevant cloud computing security practices and controls for cloud ~~users~~service customers, auditors and certifiers to understand cloud security requirements, and for public Cloud Service Providers to strengthen and demonstrate the cloud security controls in place, in their cloud environments.

~~Acknowledgement is~~In preparing this standard, reference was made ~~for~~to the ~~use of information from~~following publications:

- Special Publication 800-145, The National Institute of Standards and Technology (NIST) Definition of Cloud Computing – Recommendation of the National Institute of Standards and Technology, September 2011 on which Clause 4 is based;
- Special Publication 800-100, Information Security Handbook: A Guide for Managers, October 2006 on which Clause 3.12 is based;
- Special Publication 800-53A Revision 1, Guide for Assessing the Security Controls in Federal Information Systems and Organisations, Building Effective Security Assessment Plans, June 2010 on which Clauses 3.14, 3.16 and 3.19 are based;
- Special Publication 800-60 Volume I Revision 1, Guide for Mapping Types of Information and Information Systems to Security Categories, August 2008 on which Tables 4 and 5 are based;
- ~~TR31:2012 Technical Reference for Security and Service Level Guidelines for the Usage Public Cloud Computing Services.~~
- SS ISO/IEC 21878:2019 Information technology – Security techniques – Security guidelines for design and implementation of virtualised servers.

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

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~~3. Compliance with a SS or TR does not exempt users from any legal obligations.~~

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