

Chapter 5

Governance and Risk Management in the Cloud with Cloud Controls Matrix V3 and ISO/IEC 38500:2008

Abhik Chaudhuri
Tata Consultancy Services, India

ABSTRACT

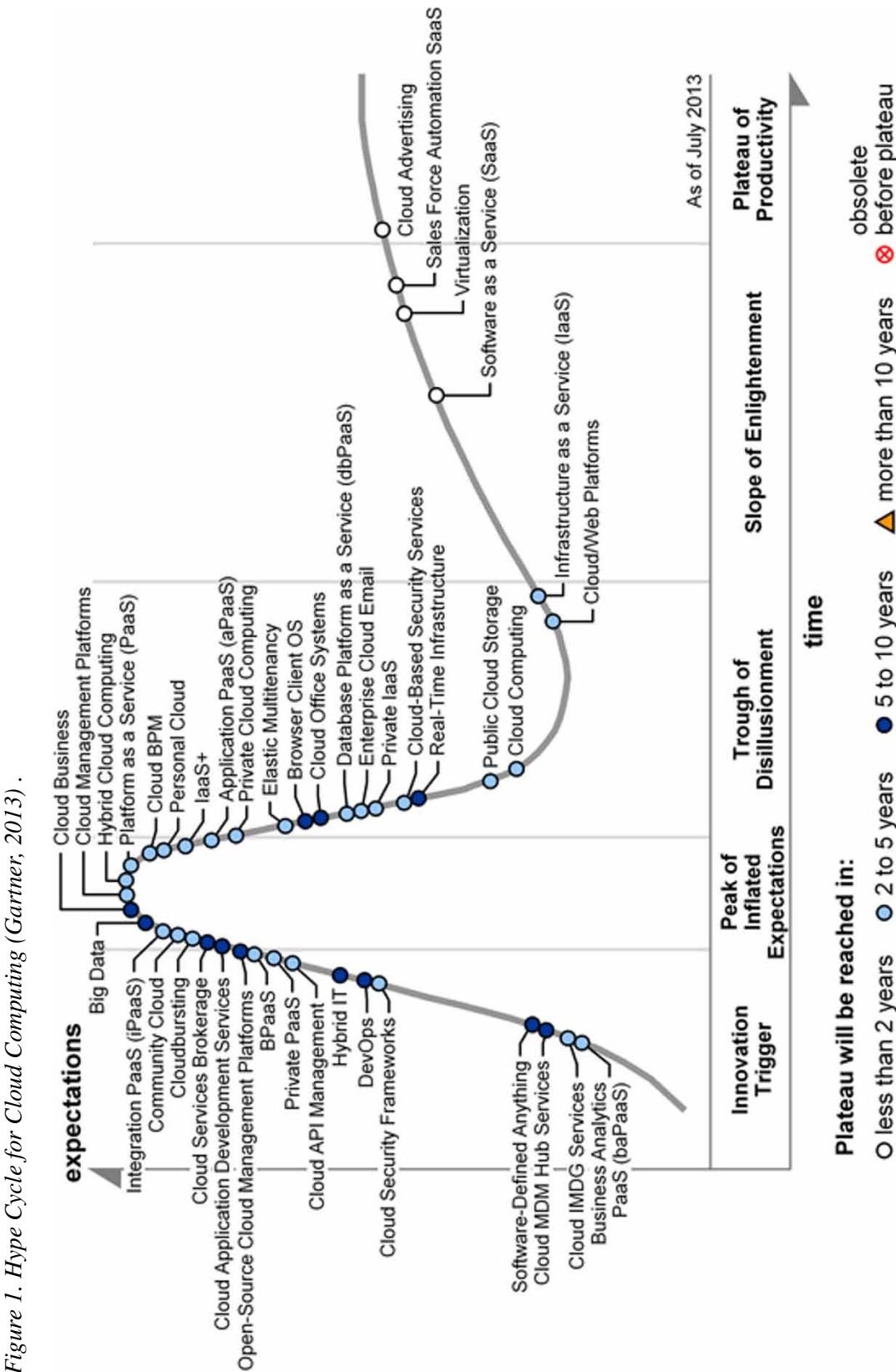
Cloud based services are gaining popularity across the globe and there is a growing interest to adopt the cloud for operational efficiency, green computing initiatives and service agility. However, concerns of security and risks in the Cloud are important constraints to reaping the benefits of Cloud Computing. Controlling the threats and vulnerabilities of Cloud based IT Services are prime necessities with proper policies and guidance from the Business Leadership or Board. While Business is concentrating on cost reduction as a primary enabler for adopting Cloud based Services, there is a growing need for exercising effective Governance and Risk Management to mitigate security risks and to exercise control over data in the Cloud. This chapter discusses how Governance and Risk Management domain (GRM) of Cloud Controls Matrix (CSA CCM) V3 Framework from Cloud Security Alliance (CSA) and the ISO/IEC 38500:2008 standard for IT Governance can be utilized together for an effective Governance and Risk Management of Cloud Services.

INTRODUCTION

Cloud Computing is gradually gaining significance as an effective IT Service Delivery methodology with every passing year and there is growing interest among the Business Owners and IT Service Providers to embrace the Cloud. According to Gartner Inc.'s Hype Cycle for Cloud

Computing (2013), Cloud Computing is gradually moving towards the Slope of Enlightenment, as shown in Figure 1, with its growing popularity and two key technology concepts related to the Cloud – Virtualization and Software as a Service (SaaS) are approaching the Plateau of Productivity. However, Cloud based IT Services are not free from security threats and vulnerability issues. In

DOI: 10.4018/978-1-4666-8387-7.ch005



20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/governance-and-risk-management-in-the-cloud-with-cloud-controls-matrix-v3-and-isoiec-385002008/134288

Related Content

FogLearn: Leveraging Fog-Based Machine Learning for Smart System Big Data Analytics

Rabindra K. Barik, Rojalina Priyadarshini, Harishchandra Dubey, Vinay Kumar and Kunal Mankodiya (2018). *International Journal of Fog Computing* (pp. 15-34).

www.irma-international.org/article/foglearn/198410

A Security Framework for Secure Cloud Computing Environments

Mouna Jouini and Latifa Ben Arfa Rabai (2019). *Cloud Security: Concepts, Methodologies, Tools, and Applications* (pp. 249-263).

www.irma-international.org/chapter/a-security-framework-for-secure-cloud-computing-environments/224576

Impact of Data Centers on Power Consumption, Climate Change, and Sustainability

Dhanabalan Thangam, Haritha Muniraju, R. Ramesh, Ramakrishna Narasimhaiah, N. Muddasir Ahamed Khan, Shabista Booshan, Bharath Booshan, Thirupathi Manickam and R. Sankar Ganesh (2024). *Computational Intelligence for Green Cloud Computing and Digital Waste Management* (pp. 60-83).

www.irma-international.org/chapter/impact-of-data-centers-on-power-consumption-climate-change-and-sustainability/340522

Efficient Resource Management in Green Computing Based on ISHOA Task Scheduling With Secure ChaCha20-Poly1305 Authenticated Encryption-Based Data Transmission

B. Santosh Kumar, K. A. Jayasheel Kumar, Balasubramanian Prabhu Kavin and Gan Hong Seng (2024). *Computational Intelligence for Green Cloud Computing and Digital Waste Management* (pp. 267-286).

www.irma-international.org/chapter/efficient-resource-management-in-green-computing-based-on-ishoa-task-scheduling-with-secure-chacha20-poly1305-authenticated-encryption-based-data-transmission/340532

Big Data and Its Visualization With Fog Computing

Richard S. Segall and Gao Niu (2018). *International Journal of Fog Computing* (pp. 51-82).

www.irma-international.org/article/big-data-and-its-visualization-with-fog-computing/210566