AWS

# Cloud Computing Concepts Overview

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The present diagram illustrates the visual representation of main essence of the ideas, associated with the topic of cloud computing, in four primary areas, including the introduction to the world of cloud computing, its benefits, introduction of the Amazon Web Service, and Amazon Web Service Cloud Adoption Framework (CAF). Every section contains lists of the associated terms or topics, and the learners can grasp how simple principles of clouds can be the foundations of more complex AWS-specific strategies. The architecture emphasizes the rational sequence of cloud training, beginning with the basic concepts, and finishing with a tactic cloud transfers based on AWS (Weinman, 2012, p. 23).

# Case Study #1: Traditional vs Cloud Computing Models

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This outline will look at a side by side comparison of two deployment models such as the traditional computing model and the cloud computing model. Conventionally, an organization is utilizing its own physical data centre, like the UCW Data Centre, in Vancouver, by which the complete infrastructure, location and environment setup is conducted manually and physically on-site. Conversely, cloud computing model involves using the global infrastructures of AWS. In this case, the infrastructure is based on launching a cloud account, choosing a geographical location (Virginia), and then installing the working environment of the registrar in this region. This points to the nature of cloud computing that hides physical constraints to effect scalable, location-independent deployment and greatly simplifies the management of infrastructures and facilitates accelerated innovation (Vaquero, Rodero-Merino, & Caceres, 2011, p. 52).

# Case Study #2: Cloud Deployment Models

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This is used to compare the various deployment models of cloud and their approach to location, access and privacy of data. A Private Cloud has a storage location on-premise and full organizational possession of the datasets where privacy and internal access are highly limited. On the contrary, the Public Cloud stores the information on a provider such as AWS infrastructure, which has a broader access with moderate levels of privacy, governed by provider-level policies. Hybrid Cloud is a mix of these two strategies, which enables the organizations to separate on-prem and cloud by positioning that organizations can provide partial access and customizable levels of privacy according to the needs of workloads. Finally, the Multi Cloud model transfers information to several cloud providers and allows complex access policies and various privacy implementations depending on the selected vendors. This is flexibility enables organizations to deform their cloud strategy to the requirements of the operations, security as well as compliance requirements (Armbrust et al., 2010, p. 54).

# Case Study #3: Cloud Service Models (IaaS, PaaS, SaaS)

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This case study gives an outline of the three main types of cloud service: Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS) demonstrating how roles and duties are divided among the service provider (AWS) and the customer (Registrar operation team). The cloud provider in IaaS delivers the virtualized computer infrastructure including CPU, storage, and network and leaves everything else to the customer which would include the platform and software. With PaaS, the provider is concentrating on the underlying infrastructure and platform, whereas the customer is only worried about deployment and management of applications and data. Lastly, in SaaS, the provider looks after the whole stack which means the application, whereas the customer merely utilizes the software. The more you go to SaaS the less control and responsibility you have, and that also affects the location, access and controls over the specific dataset (Rountree & Castrillo, 2013, p. 17).

# Concepts: AWS Billing, Pricing, and Support Overview

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In this diagram, there are five main conceptual areas regarding AWS billing, pricing, and support. In the initial segment, the author informs the reader about the pricing model of AWS and focuses on a pay-as-you-go approach and other cost-saving models, including reservations, tiered usage, and custom pricing. The second part is devoted to Total Cost of Ownership (TCO), the comparison between the cloud and on-premises infrastructure and how to use the AWS Pricing Calculator to evaluate costs. Part three plunges into AWS Organizations and explains the organization units, access, security, and feature advantages. The fourth part describes how to manage cost, such as dashboard, billing tools, forecasting usage, and reporting. Finally, the last section, section five, about AWS technical support, is presented, overviews support plans, and case severity system according to which the response time operates. The combination of these sections can serve as a basis of mastering AWS billing and support practices.

# GitHub Deployment

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# References

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