Cloud computing service models

Learn the key concepts of the infrastructure, platform, and software as a service models

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February 08, 2011

In this three-part series find straightforward, real-world examples of cloud computing to help eliminate the confusion around the concept. Each article in this series covers one of the three service models of cloud computing, beginning with infrastructure as a service, then moving to platform as a service, and finally software as a service. After reading this series, cloud computing will feel like much more than simply a buzzword.

This three-part series introduces you to the concept of cloud service models for infrastructure (IaaS), platform (PaaS), and software (SaaS); each article provides real-world examples of the service models. A matrix comparing attributes and concepts across all three models appears in each article.

Part 1: Infrastructure as a service

In Part 1: Infrastructure as a service, learn about the key concepts of IaaS, and how IaaS integrates basic services such as virtual servers, data storage, and databases into one platform for deploying and running your applications. The article covers such key concepts as:

- Cloudbursting
- Multi-tenant computing
- Resource pooling
- The hypervisor
- The two primary facets that make IaaS special: Elasticity and virtualization

Part 2: Platform as a service

In Part 2: Platform as a service, discover how PaaS offers opportunities for developers to benefit from cloud computing. PaaS is unique in that it enables developers to build and deploy web applications on a hosted infrastructure and allows them to leverage the seemingly infinite compute resources of a cloud infrastructure. Examine the main components of PaaS: The computing platform and service (or solution stack).
Part 3: Software as a service

In Part 3: Software as a service, explore how SaaS provides network-based access to commercially available software and how it can lead to increased speed of software deployment, faster user adoption of software, less support requirements, and ease in implementation and upgrades. Learn more about a process known as user experience application design.