THE OPEN GROUP SERIES

Cloud Computing for Business
The Open Group Guide

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An Open Group Guide

1   What Is Cloud?

The following excerpt is from Chapter One – What is Cloud?

1.8 The Impact of Cloud Computing

Most people that have water on tap take it for granted. Few have ever had to go to a well or communal standpipe for their water, or know what it is like to have to do this every day. Having water on tap brings a higher quality of life. Freed from the need to devote time and effort to basic but necessary tasks, people can do things that they want to do, that make their life better. In the same way, cloud computing frees enterprises from the need to devote time and effort to operating and managing their IT, and enables them to focus on their core activities.

The knock-on effects on the wider economy are huge, and very beneficial. As businesses become more effective at what they do, they have capacity to do more. The whole economy grows. Municipal water is an essential pre-requisite for a civilized society today. In the same way, cloud computing will be essential for the civilized societies of the future.

New Business Paradigm

The evolution of business and IT assets and operations is a continuous process. Today, many factors are involved beyond the disruptions caused by technology developments.

Economic, environmental and global activities shape regional markets, products and services in many industry sectors. Government legislation and investment priorities drive standards and commercial behaviors. The Internet, mass media and collaboration create new access channels that enable market developments hitherto constrained by geography and performance limitations. Cloud computing provides a new business paradigm for resources. It enables organizations to create and use IT and business services on demand from optimal sources to maximize utilization and cost effectiveness. This can be between enterprises or within a single enterprise.

In a business environment, the business processes are how work gets done. They are supported by applications that manage information content and perform transactions. These are in turn supported by a platform and infrastructure that provide storage, processing, and communications. Cloud computing enables businesses to create and use services on demand, through cloud SaaS, PaaS, and IaaS. Examples of such services include business services, application software services, integration and development services, and infrastructure services. The applications, platform and infrastructure thus can be replaced by cloud services, as shown below (in Figure 7).
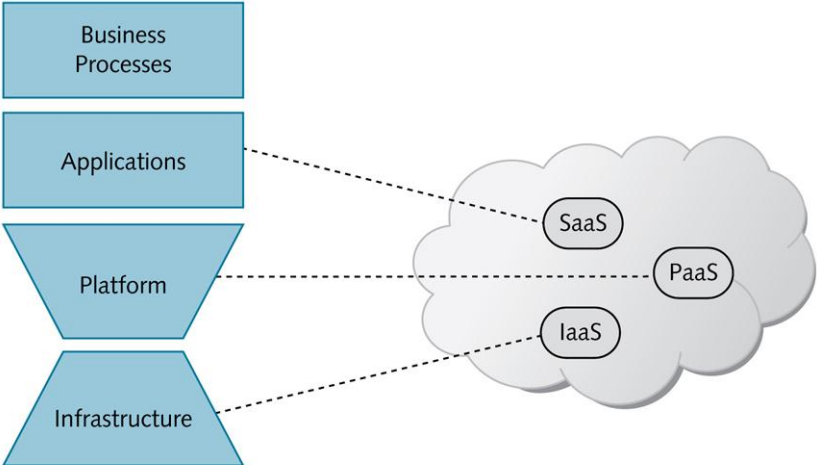
Figure 1.7 Use of cloud services to support business processes

The cloud services that support the business processes can be inside the organization, in an internal private cloud, or outside it, in a public cloud or virtual private cloud, as illustrated in the next figure (Figure 8). Or they can be in a hybrid cloud, a combination of public and private clouds.
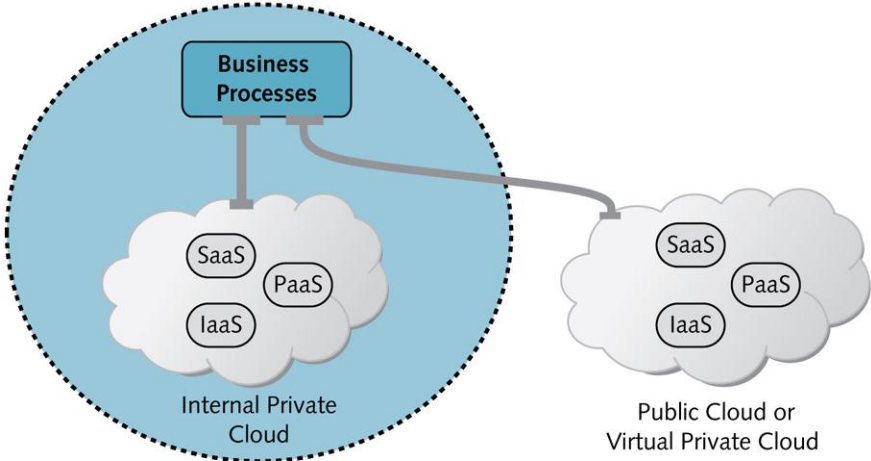

Figure 1.8 Internal and external cloud services

Cloud computing enables businesses to think and act beyond the "four walls" of the company through exchange of services. They can access marketplace best practice solutions, and select effective IT services from multiple sources to meet their needs faster and at lower cost.

Cloud Ecosystems
An ecosystem exists where participants in a defined market have integrated business processes and use common standards for exchange of information, products, and services.

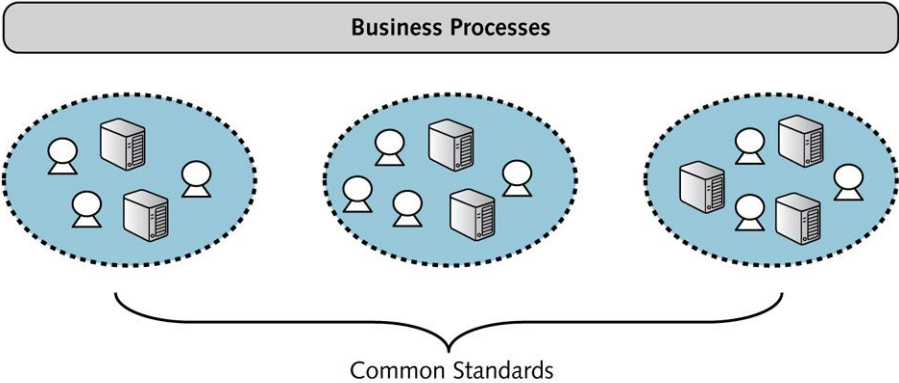**Business Processes**

Common Standards

Figure 1.9 Business ecosystem

In today's world, companies are participating in highly collaborative ecosystems providing their specific expertise to create end-to-end services. This will become more important in the future.

SOA and Web 2.0 were milestone developments in the IT industry, while Business Process Management (BPM) has been a major step toward standardized business services automation. With cloud computing, standards and technological developments come together to create an environment in which integrated business processes are supported by software services performed within and between enterprises.
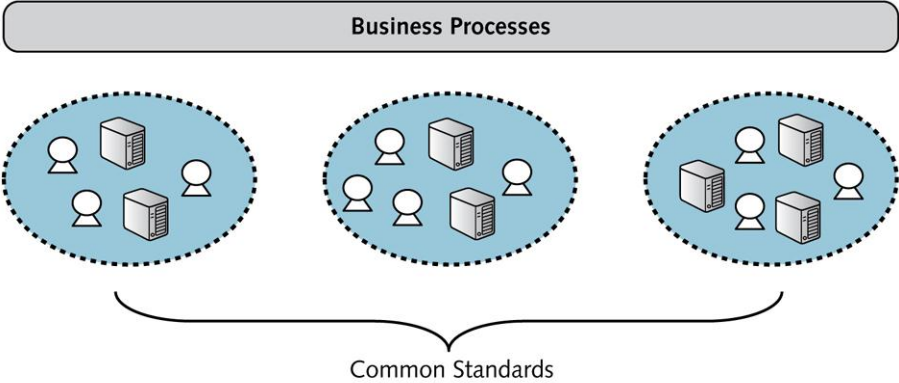
Business Processes

Common Standards

Figure 1.9 Business ecosystem

In such an ecosystem, providers and consumers of cloud services participate in common business processes. We have become used to the Cloud as a means of sharing information; it is now commonplace, for example, for people to share photographs using social network websites. In cloud-based business systems, this is taken to a new dimension; the Cloud becomes a means by which enterprises can share business logic.

Cloud ecosystems foster standards-based business exchanges between participating enterprises. This encourages optimization of the products and services available in the ecosystem's marketplace.

Cloud computing enables providers and consumers of products and services to interact much more easily, because they are freed from the drudgery of providing the necessary IT support.

This encourages the creation and growth of ecosystems in which companies co-operate effectively to meet the needs of society. The benefits of cloud computing extend not just to individual businesses, but to business as a whole.