

## **CLOUD COMPUTING AND SOFTWARE AS A SERVICE (SaaS)**

Cloud computing and software as a service (SaaS) are two of the latest trends in computing. These two computing concepts have both had a positive impact on the computing industry by using the Internet to circumvent traditional computing techniques. Despite their similarities, however, they are in fact quite different services, which can be used to different ends within any given company.

Software as a service bypasses the bulk purchase of software upfront, which subsequently requires maintenance and upkeep. Instead, software as a service streamlines the process through leasing, where companies merely rent the use of the necessary software and use it through an Internet connection to a remote site. This process allows companies to lease only as much software as needed and removes the need to manage the updates, patches, and renewal fees often associated with purchasing software.

Likewise, cloud computing also involves the leasing of computing technology via the Internet. In cloud computing, companies rent the software, hardware, and other infrastructure needed to complete the majority of their computing tasks. Then, since all the costly technology and programming demands have been outsourced, the company can access their computing resources remotely through a virtual interface, which does not require users to have extensive knowledge of the programs and hardware that support the interface.

The idea behind software as a service and cloud computing is very similar. Instead of investing in the upfront cost of necessary materials like software or infrastructure, businesses instead lease these services through a remote third party, which allows companies to purchase only what they need and can afford. In this way, both software as a service and cloud computing have revolutionized the way businesses approach computing, making advanced computing options both more manageable and efficient.

However, despite this inherent similarity, these two concepts are still substantially different in terms of their scope. Software as a service, while innovative and useful, is more limited than cloud computing. After all, software as a service involves the leasing of software only. Because of this, businesses that utilize software as a service still require extensive computing resources. Software as a service, therefore, can change the way a computing department works within a company, but it does not generally affect the way the company uses their computing department.

In contrast, cloud computing involves much more, essentially leasing software in addition to hardware and infrastructure. This holistic rental process can offer companies a total overhaul of their entire computing department, changing the very nature of how computing is approached. With cloud computing, much fewer resources and personnel must be devoted to development and maintenance, which is a stark difference from software as a service.

This difference is well illustrated when looking at a given computing task. Customer relationship management (CRM) is a common computing task for any company. Keeping track of client information requires extensive software in order to enter and file the contact information. It also requires hardware and infrastructure to house this data. Companies then need to train individuals to both input the data as well as retrieve it, in order to make it functional. While software as a service can give businesses access to specific programs to make this process easier, the company is still responsible for its storage, as well as for hiring or training skilled employees.

Cloud computing, on the other hand, simplifies the process even further, making it possible to outsource the programs necessary as well as the storage space. Because these processes are outsourced, it is also possible to have employees with less specific training, since cloud computing creates a virtual

environment that does not require knowledge of the programs that create the interface. Therefore, cloud computing changes the way customer relationship management is developed and maintained entirely.

Clearly, while both concepts can enhance and improve the way companies deal with computing, the impact of cloud computing is far more dramatic, making it a powerful tool for companies and businesses of all varieties.