Cloud Computing: New Era for Industry

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Summary

The oil and gas industry has recently started associating itself as the technology industry. The main objective for the use of technology is the reduction of costs and increased efficiency. Cloud Technology provides a scalable solution for computing power and storage accessibility to the end-user as per demand. In this paper, we try to give a brief description of this technology.

Theory

Cloud computing is a solution for businesses where demand for IT services are High. A common scenario is that most of the E&P providers do not have an IT department that is able to keep up with all the business requirement This ultimately causes immense loss of man hours. The new generation cloud computing infrastructure has a foundation of reliable services running on servers with access to layered virtual environment. Commercial offerings have evolved to meet Quality of Service (QoS) requirements for customers and Service Level Agreements (SLAs) are provided to meet the client expectations.
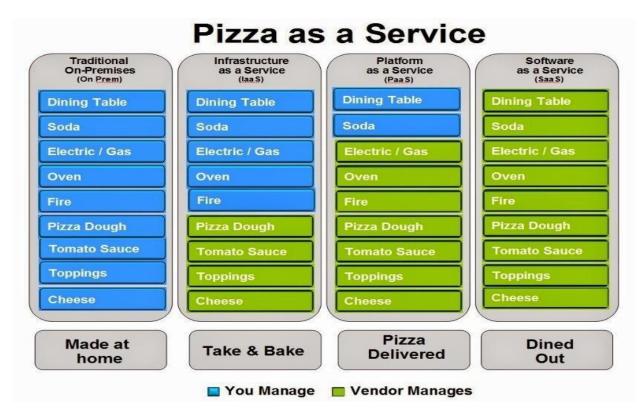
Cloud Technology further divides in to three categories as Software as a Service (SaaS), Infrastructure as a Service (IaaS) and Platform as a Service (PaaS).

Software as a Service : Our focus is on the end user as opposed to managed services. It involves licenses borrowed by clients on a pay as you go model

Infrastructure as a Service : Client is not required to purchase software or servers. These resources are procured on an outsourced and on demand service mode basis

Platform as a Service : Platform for creating a software is delivered. It is considered more complicated than IaaS and SaaS.

Simple Explanation of Cloud Model

Cloud gives ability to scale up additional computing capacity in times of peak activity. It provides the flexible solution that supports growth without need for commitment to high initial costs. It helps service companies, catering to production companies, to expand into additional geographical region without investing high capital as startup cost for computing power.

In the volatile market that exists today, enhancing workflow efficiency and improving accuracy using 3D visualization of seismic data can help the companies gain the competitive edge they need to maintain profitability.

Conclusions

Cloud computing will serve Software as a Service, path for Massive Parallelization, Big Data Analytics and internet of things. Cloud is more scalable, reliable, and secure than traditional IT. With time we will see further improvements in the technology which will bring further efficiency and further reductions of the overall costs. With immediate availability of new information, large corporations can quickly introduce new ideas without worrying about the data centers.

There are some challenges when considering cloud solutions. Internet connectivity speed for both download and upload as well as training of the existing workforce has to be considered.