

## Ex. No 7 Case Study

**Aim:** To perform case study on any one open source and commercial cloud.

### **Case Study:**

#### **a) Eucalyptus - Open Source Cloud**

- Eucalyptus is an open source software platform for implementing Infrastructure as a Service (IaaS) in a private or hybrid cloud.
- Eucalyptus is an acronym for **Elastic Utility Computing Architecture for Linking Your Programs To Useful Systems.**
- Eucalyptus was founded out of a research project in the Computer Science Department at the University of California, Santa Barbara.
- Eucalyptus Systems announced a formal agreement with Amazon Web Services (AWS) in March 2012.
- This allows us to combine Amazon EC2 public cloud and Eucalyptus private cloud to create a hybrid cloud.
- Eucalyptus has the following components: cluster controller, storage controller, cloud controller, Walrus storage controller and Node Controller.
- Features of eucalyptus
  - > Support Linux and Windows Virtual Machines
  - > API compatible with Amazon EC2 platform
  - > Works with multiple hypervisors including VMware, Xen and KVM.
  - > Has provision for group, user management and security groups.

#### **b) Microsoft Azure – Commercial Cloud**

- Azure is Microsoft's cloud platform that provides a wide variety of commercial services.
- Microsoft unveiled Windows Azure in early October 2008 but it went to live after February 2010.
- In 2014 Microsoft changed its name from Windows Azure to Microsoft Azure.
- Microsoft Azure offers the following services.
  - > **Compute Services:** It includes the Microsoft Azure Cloud Services, Azure Virtual Machines, Azure Website, and Azure Mobile Services, which processes the data on the cloud with the help of powerful processors.

- > **Data services:** This service is used to store data over the cloud that can be scaled according to the requirements. It includes Microsoft Azure Storage (Blob, Queue Table, and Azure File services), Azure SQL Database, and the Redis Cache.
- > **Application services:** It includes services, which help us to build and operate our application, like the Azure Active Directory, Service Bus for connecting distributed systems, the Azure Scheduler, and the Azure Media Services.
- > **Network services:** It helps you to connect with the cloud and on-premises infrastructure, which includes Virtual Networks, Azure Content Delivery Network, and the Azure Traffic Manager.
- > **Web + Mobile:** Creating Web + Mobile applications is very easy as it includes several services for building and deploying applications.
- > **Internet of Things:** Includes IoT Hub and IoT Edge services that can be combined with a variety of machine learning, analytics, and communications services.
- > **Security + Identity:** Includes Security Center, Azure Active Directory, Key Vault and Multi-Factor Authentication Services.

**Result:**

Thus Case study of Eucalyptus – Open Source Cloud and Microsoft Azure – Commercial cloud are done.