



# Cloud Computing

## Course Summary

Understanding the cloud architecture and Types of virtualization

## Duration

2 days

## Objectives

Understanding the cloud architecture and Types of virtualization

## Audience

Database Administrators, Support Engineer, Technical Administrator, Virtualization



## Pre-Requisites

Knowledge on System/Server hardware administration, Os & virtualization basic





## Outline

### Day1:




#### 1. Understanding Cloud Computing

-  Origins and Influences
  - A Brief History
  - Definitions
  - Business Drivers
  - Capacity Planning
  - Cost Reduction
  - Organizational Agility
-  Technology Innovations
  - Clustering
  - Grid Computing
  - Virtualization
  - Technology Innovations vs. Enabling Technologies




#### 2. Basic Concepts and Terminology

-  Cloud
-  IT Resource
-  On-Premise
-  Cloud Consumers and Cloud Providers







-  Scaling
-  Cloud Service
-  Cloud Service Consumer



### 3. Goals and Benefits

-  Reduced Investments and Proportional Costs
-  Increased Scalability
-  Increased Availability and Reliability

### 4. Risks and Challenges






-  Increased Security Vulnerabilities
-  Reduced Operational Governance Control
-  Limited Portability Between Cloud Providers
-  Multi-Regional Compliance and Legal Issues

### 5. Fundamental Concepts and Models


-  Roles and Boundaries
-  Cloud Provider
-  Cloud Consumer
-  Cloud Service Owner
-  Cloud Resource Administrator
-  Additional Roles
-  Organizational Boundary
-  Trust Boundary

Day:2






### 6. Cloud Characteristics

-  On-Demand Usage
-  Ubiquitous Access
-  Multitenancy (and Resource Pooling)
-  Elasticity
-  Measured Usage



 Resiliency








## 7. Cloud Delivery Models

-  Infrastructure-as-a-Service (IaaS)
-  Platform-as-a-Service (PaaS)
-  Software-as-a-Service (SaaS)
-  Comparing Cloud Delivery Models
-  Combining Cloud Delivery Models



## 8. Cloud Deployment Models

-  Public Clouds
-  Community Clouds
-  Private Clouds
-  Hybrid Clouds
-  Other Cloud Deployment Models

## 9. Virtualization Technology

-  Hardware Independence
-  Server Consolidation
-  Resource Replication
-  Operating System-Based Virtualization
-  Hardware-Based Virtualization.
-  Virtualization Management
-  Other Considerations

## Lab Requirements

-  Machines with good internet connectivity
-  4GB RAM

