



# Cloud Computing Links & Notes

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## Unit 2: Cloud Virtualization

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### 1. Cloud Virtualization and Types

#### [Virtualization in Cloud Computing](#)

Learn about virtualization concepts in cloud computing, its various types, and how it enables efficient resource utilization.

### 2. Hypervisors

#### [Hypervisor](#)

Understand what hypervisors are, their types (Type 1 & Type 2), and how they manage virtual machines in a cloud environment.

### 3. Virtual Provisioning at Data Center

#### *Covered in Virtualization and Hypervisor topics*

Focuses on provisioning virtual resources like storage, compute, and network in data centers through virtualization technologies.

### 4. Hot & Cold Migrations

#### [Hot and Cold Migrations](#)

Explains the concept of migrating virtual machines between servers with minimal (hot) or no downtime (cold).

## Unit 3: Cloud Storage and Management

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### 1. Cloud Storage Architecture

#### [Cloud Storage Architecture](#)

An overview of cloud storage architecture, its components, and how data is stored and managed in the cloud.

### 2. Cloud Management in Cloud Computing

#### [Cloud Management](#)

Discusses tools and strategies used for managing cloud services, resources, and ensuring operational

efficiency.

### 3. Cloud Networking

#### [Cloud Networking](#)

Covers networking in the cloud environment, including virtual networks, connectivity, and cloud-based networking services.

### 4. Designing Content Delivery Network (CDN)

#### [CDN System Design](#)

A detailed guide on designing a CDN system to efficiently deliver content across the globe with low latency.

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## Unit 4: Cloud Security and Compliance

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### 1. What is Cloud Security?

#### [Cloud Security](#)

Introduces the key concepts of cloud security, threats, and best practices for protecting cloud environments.

### 2. Data Protection in the Cloud: Challenges and Best Practices

#### [Data Protection in the Cloud](#)

Explores the challenges of data protection in the cloud and outlines best practices to ensure data security and compliance.

### 3. Identity and Access Management (IAM)

#### [Identity and Access Management](#)

Explains IAM concepts, how access to cloud resources is controlled, and the importance of managing identities securely.

### 4. Regulatory Compliance Issues in Cloud Computing

#### [Regulatory Compliance Issues](#)

Discusses the common regulatory challenges faced in cloud adoption and how organizations can address compliance requirements.

### 5. Cloud Compliance

## [Cloud Compliance \(DigitalOcean\)](#)

Provides insights on maintaining compliance with industry regulations and standards when using cloud services.

## 6. Cloud Intrusion Detection

### [Cloud IDS \(Intrusion Detection Service\)](#)

Describes Intrusion Detection Systems in the cloud, how they monitor and detect unauthorized access or anomalies.

## 7. Cloud Intrusion Detection and Prevention Systems (IDPS)

### *Extension of Cloud IDS topic above*

Covers not just detection but also prevention mechanisms that actively block malicious activities in cloud environments.

### Intrusion Detection & Prevention Systems (IDPS)

- [What is IDPS?](#)

Basics of IDPS, its role in identifying and preventing unauthorized access and threats to data systems.