



# **CLOUD STORAGE AND VIRTUALIZATION STRATEGIES TRAINING COURSE**

**19 - 23 OCT 2026**

**KUALA LUMPUR**

**5200 € (PER PERSON)**

**REF: #DM5793\_90139**



## **COURSE INTRODUCTION / OVERVIEW:**

This comprehensive course provides a deep dive into the essential pillars of modern IT infrastructure: cloud data storage and virtualization. In an era where data is the new currency and operational agility is paramount, mastering these technologies is no longer optional but a strategic imperative. This program is meticulously designed to transform participants from technology users into strategic architects, capable of designing, implementing, and managing robust, scalable, and cost-effective cloud and virtualized environments. Drawing upon foundational principles discussed by experts like Thomas Erl in his seminal work, "Cloud Computing: Concepts, Technology & Architecture," the course navigates through complex topics from storage tiers and hypervisor management to advanced data migration and security protocols. At BIG BEN Training Center, we bridge the gap between theoretical knowledge and practical application, ensuring that every participant gains the confidence to tackle real-world challenges. This training will empower you to optimize data lifecycle management, enhance disaster recovery plans, and align your organization's IT infrastructure with its core business objectives, ensuring a future-proof technology stack.

## **TARGET AUDIENCE / THIS TRAINING COURSE IS SUITABLE FOR:**

- IT Managers and Directors.
- Cloud Engineers and Architects.
- System and Network Administrators.
- Data Center Professionals.
- Solutions Architects.
- IT Infrastructure Specialists.
- DevOps Engineers.
- Technical Project Managers.
- IT professionals seeking to upskill in cloud technologies.

## **TARGET SECTORS AND INDUSTRIES:**

- Information Technology and Services.
- Financial Services and Banking.
- Healthcare and Pharmaceuticals.
- Telecommunications.
- Retail and E-commerce.
- Manufacturing and Logistics.

- Education and Research Institutions.
- Governmental and Public Sector Agencies.
- Energy and Utilities.



## TARGET ORGANIZATIONS DEPARTMENT

- Information Technology (IT) and Infrastructure.
- Data Management and Analytics.
- Operations and Technical Support.
- Cloud Strategy and Architecture.
- Cybersecurity and Information Security.
- Research and Development (R&D).
- Digital Transformation and Innovation.
- Enterprise Architecture.

## COURSE OFFERINGS:

By the end of this course, the participants will have able to:

- Evaluate and select appropriate cloud storage solutions based on performance, cost, and security requirements.
- Design and implement robust server, storage, and network virtualization environments.
- Develop comprehensive data migration strategies for moving workloads to the cloud.
- Master the principles of Software-Defined Storage (SDS) to enhance flexibility and control.
- Implement best practices for securing data in cloud and virtualized infrastructures.
- Optimize cloud storage costs through effective tiering, lifecycle policies, and resource management.
- Formulate effective disaster recovery and business continuity plans using cloud technologies.
- Analyze and troubleshoot performance issues in virtualized and cloud storage systems.
- Align cloud and virtualization strategies with overarching business goals and compliance mandates.

## COURSE METHODOLOGY:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and highly practical, ensuring that participants gain tangible skills they can apply immediately in their professional roles. We move beyond traditional lecture-based formats to create a dynamic learning environment. The course is built upon a foundation of expert-led instruction, where complex concepts are demystified through clear explanations and real-world examples. This is complemented by a series of in-depth case studies that challenge participants to analyze complex scenarios and devise strategic solutions. A significant portion of the training is dedicated to interactive group discussions and collaborative workshops, allowing participants to share insights, debate approaches, and learn from the diverse experiences of their peers. Practical exercises and simulated scenarios provide a hands-on opportunity to apply learned concepts in a controlled setting. Continuous feedback from the instructor ensures that participants are on the right track, solidifying their understanding and building their confidence throughout the five-day program. This blended approach guarantees a comprehensive and lasting learning experience.

# COURSE AGENDA (COURSE UNITS):

## UNIT ONE: FOUNDATIONS OF CLOUD AND VIRTUALIZATION



- Introduction to Cloud Computing Models (IaaS, PaaS, SaaS).
- Understanding Public, Private, Hybrid, and Multi-Cloud Environments.
- Core Concepts of Virtualization Technology.
- The Business Value and ROI of Cloud and Virtualization.
- Key Differences Between Virtualization and Containerization.
- Exploring the Global Cloud Infrastructure Landscape.
- Introduction to Major Cloud Service Providers.

## UNIT TWO: DEEP DIVE INTO CLOUD STORAGE SOLUTIONS

- Architecting Storage: Object, Block, and File Storage Explained.
- In-depth Look at AWS S3, Azure Blob Storage, and Google Cloud Storage.
- Data Lifecycle Management and Automated Storage Tiering.
- Strategies for Data Archiving and Long-Term Retention.
- Content Delivery Networks (CDNs) and Edge Caching.
- Implementing and Managing Cloud Databases.
- Best Practices for Cloud Storage Cost Management and Optimization.

## UNIT THREE: MASTERING VIRTUALIZATION TECHNOLOGIES

- Server Virtualization and Hypervisors (Type 1 vs. Type 2).
- Exploring VMware vSphere and Microsoft Hyper-V Platforms.
- Network Virtualization Concepts and Implementation (VLANs, VXLANs).
- Storage Virtualization and Software-Defined Storage (SDS).
- Desktop Virtualization (VDI) and its Use Cases.
- Introduction to Container Technology with Docker.
- Managing Virtual Machines: Provisioning, Cloning, and Snapshots.

## UNIT FOUR: ADVANCED IMPLEMENTATION AND MANAGEMENT STRATEGIES

- Developing a Phased Cloud Data Migration Strategy.
- Techniques for Performance Monitoring and Tuning in Virtual Environments.
- Implementing High Availability and Fault Tolerance.
- Cloud Automation and Infrastructure as Code (IaC) Principles.
- Managing Multi-Cloud and Hybrid Cloud Storage Environments.
- Backup and Recovery Strategies for Virtualized Workloads.
- Capacity Planning and Resource Management for Scalability.

## UNIT FIVE: SECURITY, COMPLIANCE, AND FUTURE TRENDS

- Cloud Security Best Practices for Data Storage.
- Data Encryption in Transit and at Rest.
- Identity and Access Management (IAM) in the Cloud.
- Navigating Compliance Frameworks (GDPR, HIPAA, etc.).
- Disaster Recovery as a Service (DRaaS) Planning and Execution.
- Emerging Trends: Serverless Computing and Edge Computing.
- Building a Future-Proof Cloud and Virtualization Strategy.



## FAQ:

### QUALIFICATIONS REQUIRED FOR REGISTERING TO THIS COURSE?

There are no requirements.

### HOW LONG IS EACH DAILY SESSION, AND WHAT IS THE TOTAL NUMBER OF TRAINING HOURS FOR THE COURSE?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

### SOMETHING TO THINK ABOUT:

As organizations increasingly adopt multi-cloud strategies, how does the principle of data gravity challenge traditional virtualization and storage management paradigms, and what new architectural patterns are emerging to address it?

### WHAT UNIQUE QUALITIES DOES THIS COURSE OFFER COMPARED TO OTHER COURSES?

This course distinguishes itself by adopting a strategic, top-down approach rather than focusing solely on the technical, command-line implementation of specific vendor tools. While practical skills are a core component, our primary emphasis is on cultivating the architectural mindset required to design and govern complex cloud and virtualized ecosystems. We delve into the "why" behind the "how," empowering participants to make informed, business-driven decisions about technology adoption, data migration, and cost optimization. The curriculum is uniquely structured to bridge the gap between infrastructure management and business objectives, focusing on critical areas like data governance, compliance, and long-term scalability. Unlike courses that may become quickly outdated with software updates, this program focuses on enduring principles of distributed systems, storage theory, and virtualization logic. Participants will leave not just with knowledge of current platforms, but with a robust conceptual framework for evaluating and integrating future technologies, ensuring their expertise remains relevant and valuable in the rapidly evolving IT landscape.