Distributed Cloud Networks Training

COURSE CONTENT

GET IN TOUCH

Multisoft Systems
B - 125, Sector - 2, Noida

(+91) 9810-306-956

info@multisoftsystems.com

www.multisoftsystems.com

About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

Distributed Cloud Networks represent a paradigm shift in cloud computing, enabling the decentralization of storage and processing across multiple geographic locations while still being managed under a single network umbrella. Multisoft Systems offers an in-depth training program on Distributed Cloud Networks, tailored for professionals aiming to excel in designing, deploying, and managing distributed cloud infrastructures.

Module 1: Cloud Ecosystem

- ✓ Introduction to Cloud Computing: Cloud computing refers to the delivery of computing services like servers, storage, databases, networking, software, and more over the internet.

- ✓ Evolution and Trends in Cloud Computing: The cloud has evolved from basic Infrastructure as a Service (IaaS) to encompass Platform as a Service (PaaS), Software as a Service (SaaS), and specialized services like Machine Learning as a Service (MLaaS).

- ✓ Types of Cloud Services (IaaS, PaaS, SaaS): AWS and Azure offer a wide range of services falling under these categories, such as AWS EC2 (IaaS), Azure App Services (PaaS), and Office 365 (SaaS).

- ✓ Cloud Service Models (Public, Private, Hybrid): AWS provides public cloud services, while Azure offers both public and private cloud options. Both platforms also support hybrid cloud deployments.

- ✓ Cloud Service Providers Overview: AWS is a leading cloud provider with services like Amazon S3 for storage and Amazon EC2 for virtual servers. Azure offers similar services such as Azure Blob Storage and Azure Virtual Machines.

- ✓ Cloud Adoption Strategies: Businesses adopt cloud services for scalability, cost-efficiency, and global reach. AWS and Azure provide resources and best practices for successful cloud adoption.

- ✓ Regulatory and Compliance Considerations in the Cloud: Both AWS and Azure comply with industry standards and regulations, offering tools like AWS Identity and Access Management (IAM) and Azure Active Directory for compliance management.

Module 2: Cloud Technologies and Features

- ✓ Virtualization Technologies: AWS provides Elastic Compute Cloud (EC2) for virtual servers, while Azure offers Azure Virtual Machines.

✓ Containerization Technologies (e.g., Docker, Kubernetes): AWS has Amazon Elastic Container Service (ECS) and Elastic Kubernetes Service (EKS), while Azure provides Azure Kubernetes Service (AKS) for container orchestration.

✓ Networking in the Cloud: AWS has services like Amazon VPC for networking, while Azure offers Azure Virtual Network.

✓ Storage Solutions (Object Storage, Block Storage): AWS S3 (object storage) and EBS (block storage) are comparable to Azure Blob Storage and Azure Disk Storage.

✓ Identity and Access Management (IAM): AWS IAM and Azure Active Directory provide identity management and access control.

✓ Security in the Cloud: Both AWS and Azure offer comprehensive security features such as encryption, firewalls, and threat detection.

✓ Scalability and Elasticity: AWS Auto Scaling and Azure Autoscale enable automatic scaling of resources based on demand.

✓ Monitoring and Logging Services: AWS CloudWatch and Azure Monitor provide monitoring, logging, and alerting capabilities for cloud resources.

Module 3: Cloud Resource Planning

✓ Capacity Planning and Resource Allocation: AWS offers tools like AWS Trusted Advisor, while Azure has Azure Advisor for resource optimization.

✓ Cost Management Strategies: Both platforms offer cost management tools like AWS Cost Explorer and Azure Cost Management.

✓ Billing and Pricing Models: AWS and Azure have pay-as-you-go pricing models with options for reserved instances and discounts.

✓ Performance Optimization Techniques: AWS and Azure provide performance monitoring tools and optimization recommendations.

✓ Disaster Recovery Planning: AWS Disaster Recovery and Azure Site Recovery offer solutions for disaster recovery planning.

✓ High Availability Architectures: AWS Availability Zones and Azure Availability Sets ensure high availability of applications.

✓ Compliance and Governance Planning: AWS Config and Azure Policy help enforce compliance and governance policies.

Module 4: Operating Your Cloud

✓ Cloud Management Platforms: AWS Management Console and Azure Portal are central interfaces for managing cloud resources.

✓ Provisioning and Deployment Automation: AWS CloudFormation and Azure Resource Manager enable automated provisioning and deployment.

✓ Configuration Management: AWS OpsWorks and Azure Automation provide configuration management capabilities.

✓ Continuous Integration and Continuous Deployment (CI/CD): AWS CodePipeline and Azure DevOps enable CI/CD workflows.

✓ DevOps Practices in the Cloud: Both AWS and Azure support DevOps practices with tools for collaboration, automation, and monitoring.

✓ Incident Response and Management: AWS and Azure offer incident response tools and guidelines for managing cloud incidents.

✓ Patch Management: AWS Systems Manager and Azure Update Management help manage patching of cloud resources.

✓ Lifecycle Management of Cloud Resources: AWS Lifecycle Policies and Azure Resource Manager Templates facilitate resource lifecycle management.

Module 5: New Services Automation

✓ Introduction to Automation in the Cloud: Automation in the cloud involves using scripts, templates, and tools to automate provisioning, configuration, and management tasks.

✓ Infrastructure as Code (IaC) Principles and Tools (e.g., Terraform): AWS CloudFormation and Azure Resource Manager Templates follow IaC principles, and tools like Terraform support multi-cloud infrastructure provisioning.

✓ Orchestration and Workflow Automation: AWS Step Functions and Azure Logic Apps automate workflows and orchestrate processes.

- ✓ Serverless Computing Concepts: AWS Lambda and Azure Functions provide serverless computing options for event-driven applications.
- ✓ Automation of Monitoring and Alerting: AWS CloudWatch Alarms and Azure Monitor Alerts automate monitoring and alerting based on predefined conditions.
- ✓ Automating Compliance Checks: AWS Config Rules and Azure Policy automate compliance checks and enforcement of policies across cloud resources.