SysOps: AWS, Azure, and Google Cloud

Managing Cloud Operations with Leading Platforms

Understanding SysOps

Definition: SysOps focuses on managing, monitoring, and maintaining cloud-based infrastructure.

Key Responsibilities:

- System monitoring and performance optimization

- Security and compliance

- Backup and disaster recovery

- Scaling and automation

Importance: Ensures system reliability, scalability, and efficiency.

SysOps with AWS

Tools and Services:
- CloudWatch: Monitoring and logging
- AWS CloudFormation: Infrastructure as Code (IaC)
- AWS Systems Manager: Centralized operational management
- Elastic Load Balancing (ELB): Scalability and load distribution

Key Features:
- High scalability
- Comprehensive monitoring
- Extensive global reach

SysOps with Azure

- **Tools and Services:**
  - Azure Monitor: Insights into application performance
  - Azure Automation: Workflow automation and configuration management
  - Azure Resource Manager (ARM): IaC for managing resources
  - Azure Backup: Data protection and disaster recovery

- **Key Features:**
  - Seamless integration with Microsoft services
  - Strong enterprise support
  - Hybrid cloud capabilities

SysOps with Google Cloud

- Tools and Services:
- - Operations Suite (formerly Stackdriver): Monitoring, logging, and diagnostics
- - Cloud Deployment Manager: IaC for automating resource deployment
- - Cloud Load Balancing: Distributing traffic efficiently
- - Cloud Functions: Serverless workflows

- Key Features:
- - AI and ML integrations
- - Cost-effective pricing
- - Focus on open-source and Kubernetes

Comparison and Choosing the Right Platform

➢ Feature Comparison:
- **AWS:**
  - Monitoring: CloudWatch
  - IaC: CloudFormation
  - Unique Strength: Scalability

- **Azure:**
  - Monitoring: Azure Monitor
  - IaC: Azure Resource Manager
  - Unique Strength: Enterprise Solutions

- **Google Cloud:**
  - Monitoring: Operations Suite
  - IaC: Deployment Manager
  - Unique Strength: AI/ML Integration