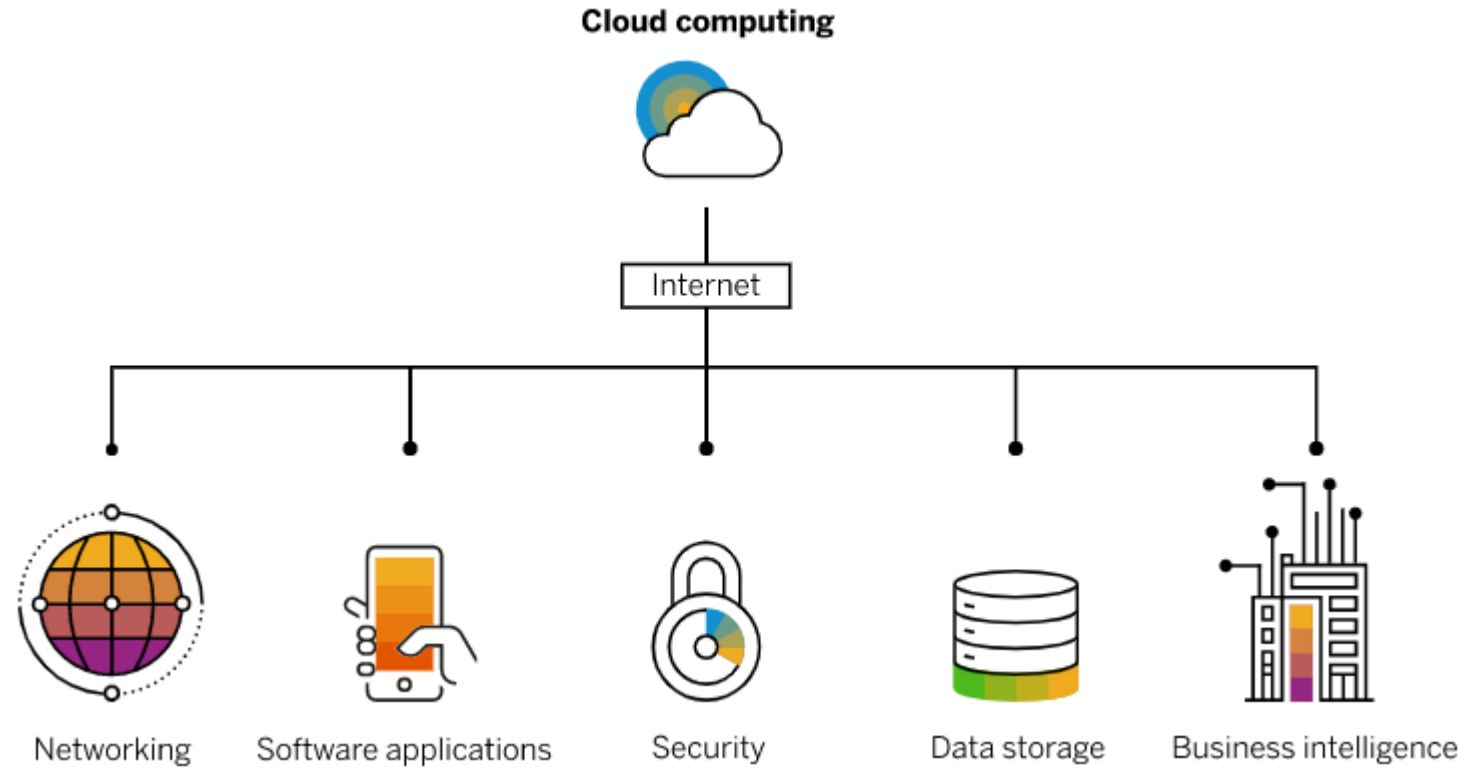


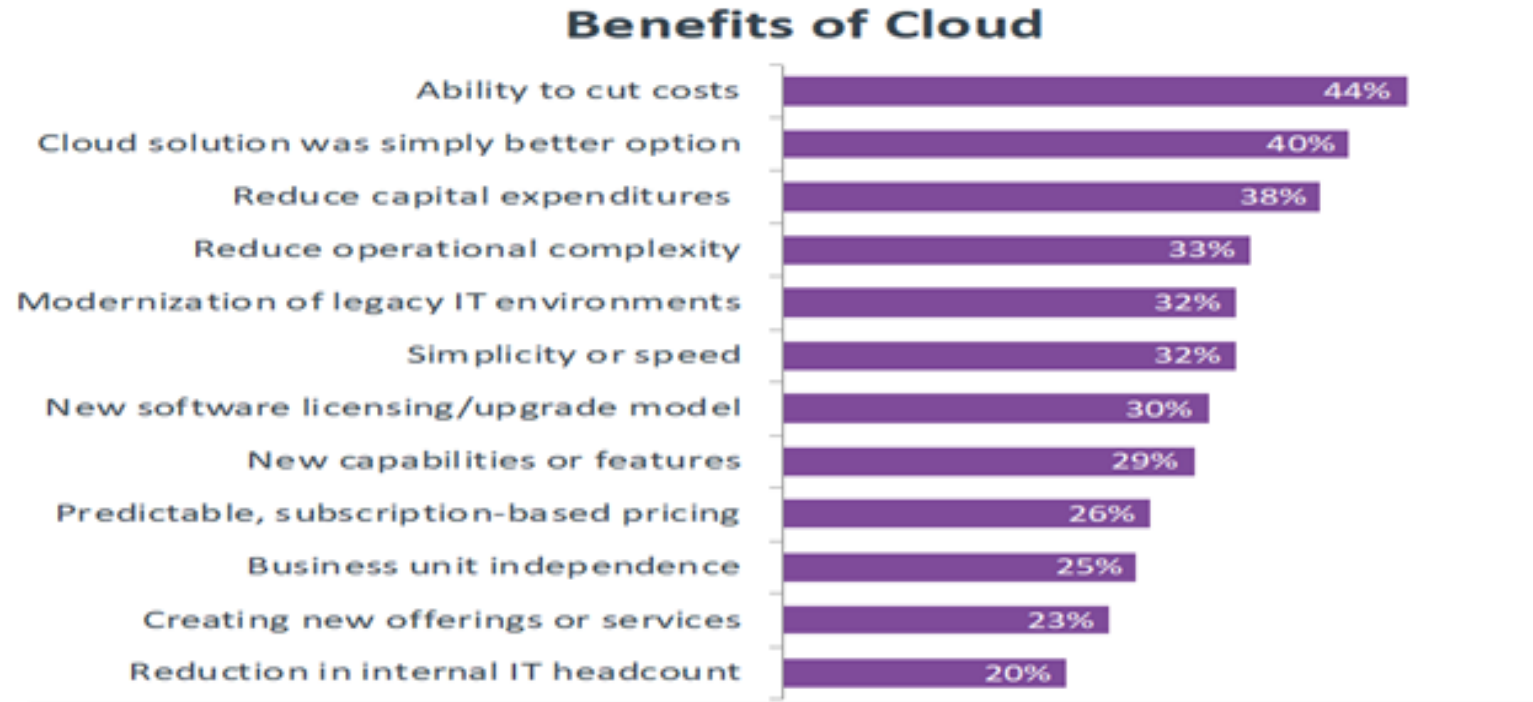
Introduction – Cloud & AWS

What is cloud Computing





































- Cloud computing is the on-demand delivery of IT resources over the Internet with pay-as-you-go pricing.





Benefits of Cloud



Cloud Computing Service Models

	Corporate Datacenter	Infrastructure as a Service	Platform as a Service	Software as a Service
Applications				
Data				
Runtime				
Middleware				
Operating system				
Virtualization				
Servers				
Storage				
Networking				

 You Manage
  CSP Manages

Three Major CSP

	AWS	Azure	GCP
Year of Launch	2006	2010	2012
Global Infrastructure	24 Regions & 77 Availability zones	60 regions	24 regions and 73 zones
Billing Pattern	Pay per use, per second, per GB hours	Pay per use, per second, per GB hours	Pay per use, per second, per GB hours
Security	Shared responsibility model	Shared responsibility model	Shared responsibility model



You Manage



CSP Manages

Cloud Computing with AWS

- Offering over 200 fully featured services from data centers globally.
- Most functionality
- Fastest pace of innovation
- Most proven operational expertise

Cloud Computing with AWS- Cont...



- <https://www.gartner.com/doc/reprints?id=1-271OE4VR&ct=210802&st=sb>

Principles



#5 PILLARS of the **AWS WELL-ARCHITECTED FRAMEWORK** @ausgeek



AWS- Region

- https://aws.amazon.com/about-aws/global-infrastructure/regions_az/?p=ngi&loc=2



AWS way to access

- **UI**
- **CLI**
- **SDK**
- **Rest API**

Service



Topic Covered with this Course: - 4 month-weekend class(2 hrs. for each session)

- Ec2
 - IAM
 - S3
 - RDS
 - VPC
 - WAF
 - Route53
 - EFS
 - FSX
 - SNS
 - Cloudwatch
- **Bonus topics are below which will also cover along with above topics**

Security Portal

- Inspector
- Security Hub
- Config
- Guard Duty

FinOps Portal

- Trusted Advisor
- Cost Explorer-Saving model, pricing model

Service (Updated) added in the course – part1

S3 Lens

Security hub aggregation

EC2 hostname with Elastic IP

Canary(CloudWatch)

Spot tool with AWS for cost Saving

Public preview of AWS Backup for Amazon S3

Service (Updated) added in the course – part1

Authorization



IAM



AWS RAM



AWS Organizations

Protected stores



AWS CloudHSM



AWS KMS



AWS Secrets Manager



AWS Certificate Manager

Authentication



Amazon Cognito



AWS SSO



Amazon Directory Service

Visibility



AWS Artifact



AWS Security Hub

Enforcement



Amazon GuardDuty



Amazon Inspector



Amazon Macie



AWS WAF



AWS Shield

Use cases : With Lab

Run apache/nginx over the Ec2 and set HA along with CDN.

EC2 launch, delete, termination, Set alert monitor from Cloud watch

AWS backup, Retention period

Access S3 bucket from ec2 node

Set ALB with cloud front

EBS Volume increase from 50 GB to 100 GB

Create Static website with S3

Create S3 bucket, upload static file

Configure cloud front with S3

S3 life cycle

Mount NFS to multiple ec2 instances and test developer code

EFS and FSX configure and test

Mount and un-mount EFS/FSX to ec2 instances.

Create landing Page for web application

Configure with Cognito

Create database with RDS service and provide access to Dev team

Use cases : With Lab

- Configure AWS inspector to Scan CVE (common vulnerabilities and exposures) and update the patched from System.
- Managed threat detection service with Ec2 and S2 service.
- Deployed record and evaluate configurations of your AWS resources
- Deployed unified security and compliance center in AWS
- Create MySQL server in RDS and set access from only bastion server.
- Create DB user and provide access to Dev team.
- Migration from On-premise to Cloud(will show on
- To give specific permission to users.
- How to managed the cost and deploy best strategy in AWS.

AWS- Signup

- Open the [Amazon Web Services \(AWS\) home page](#).
- Choose Create an AWS Account.
Enter your email address, password, AWS account name, and then choose Continue. Be sure that you enter your account information correctly, especially your email address. If you enter your email address incorrectly, you can't access your account.

Add your contact information

1. Select Business or Personal.
Enter your company or personal information.

Choose Continue.

- You receive an email to confirm that your account is created. You can sign into your new account using the email address and password you registered with. However, you can't use AWS services until you finish activating your account.

AWS- Signup : Cont. ...

Add a payment method

- On the Billing information page, enter the information about your payment method.
- Important: You can't proceed with the sign-up process until you add a valid payment method.
- Verify your phone number
- Choose an AWS Support plan
- On the Select a support plan page, choose Basic plan.
- Choose Complete sign up.
- Wait for account activation
- After you choose a Support plan, a confirmation page indicates that your account is being activated. Accounts are usually activated within a few minutes, but the process might take up to 24 hours.
- You can sign into your AWS account during this time. The AWS home page might display a Complete Sign-Up button during this time, even if you've completed all the steps in the sign-up process.
- When your account is fully activated, you receive a confirmation email. Check your email and spam folder for the confirmation email. After you receive this email, you have full access to all AWS services.