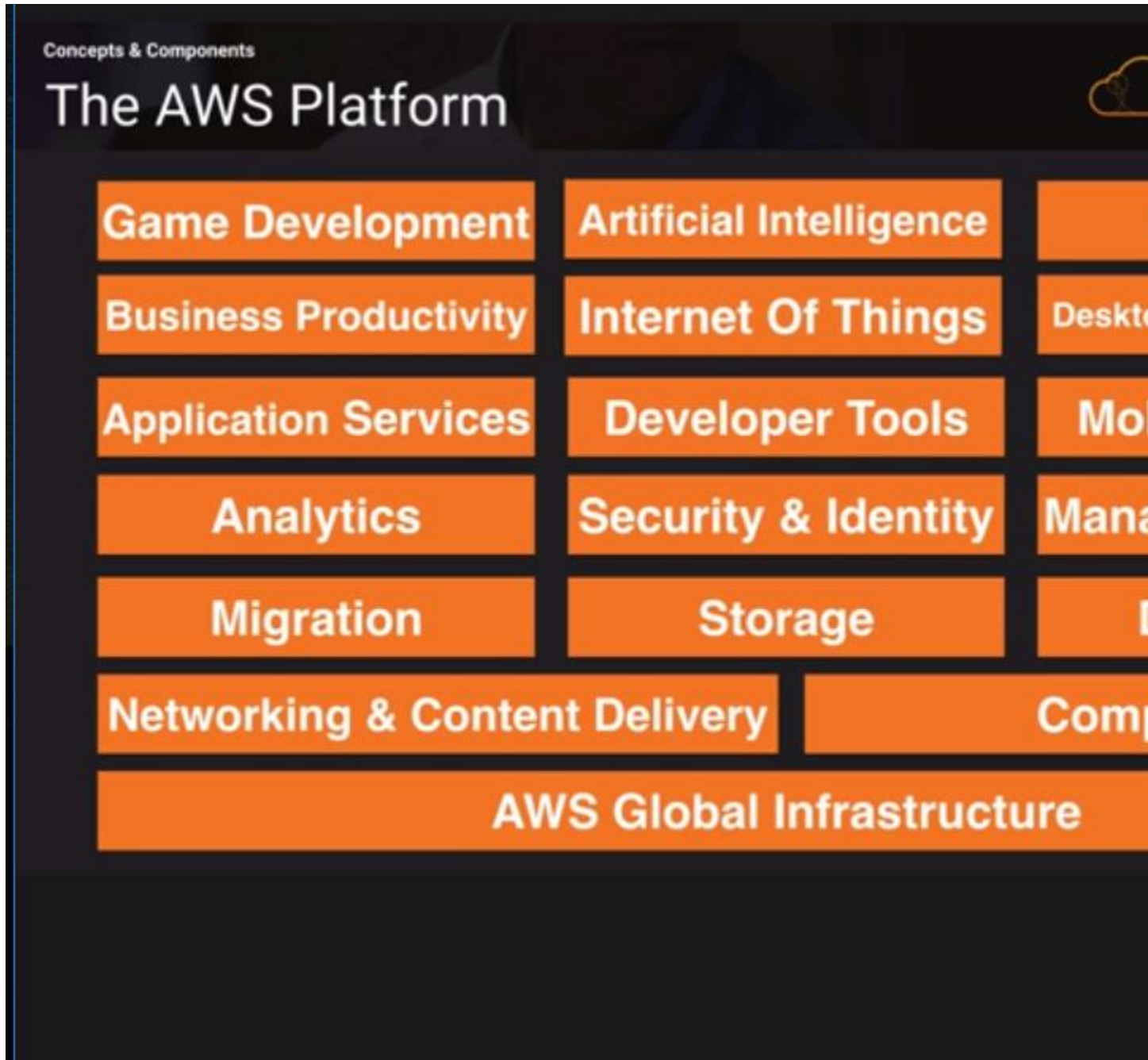


- Amazon Services



- Services relevant to exam

Concepts & Components

The AWS Platform

What do you need to know to pass the
Certified Solutions Architect
Associate Exam?

Security & Identity

Storage

Networking & Content Delivery

AWS Global Infrastructure

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- Region : It consists of 2 or more 'availability zones'. AZ is simply a datacenter-----
-----Imp topic for exam. Explore more!!!!!!!!!!!!
- Edge locations are CDN(Content delivery network) endpoints for Cloudfront.
- CDN : Its a way to cache large media objects in cloud. (like web proxy)

Overview of Services :

Networking and Content Delivery :

- VPC : Virtual private cloud. Kind of Virtual Data-center.
- Route53 : Amazon's DNS service. Its called Route53, 53 is the dns port.
- Cloud Front : Part of CDN, consists of whole bunch of diff edge locations that will cache your assets.(media)
- Direct Connect : It is a way to connect physical datacenter to AWS via telephone line instead of internet. (For security purpose maybe)

Compute :

- EC2 : Elastic compute cloud. It is basically all VMs in cloud/AWS.
- EC2 Container service : Highly scalable, high performing container management service that supports docker containers.
- Elastic beanstalk : Helps in deploying codes in AWS.
- Lambda : Revolutionary service in cloud computing. Unlike EC2 which reserves OS/underlying host. Here code is uploaded, and code responds to events.
- Lightsail
- Elastic Map reduce : It is used to assist you in processing large datasets

Storage :

- S3 : Simple storage service. Imp in exams. It is a virtual disk in cloud where we can save objects (media,text,etc). It is object based storage. (e.g. dropbox utilizes S3)
- Glacier : It is where you archive your files from S3. Let say we dont want data in S3 for seven years then we can keep in glacier. Basically it is an archived storage. Retrieval can take upto certain hours.
- EFS : Elastic file service. It is block based storage unlike S3.
- Storage gateway : It is a way of connecting S3 to on premise data center. Basically it reserves a VM in premises and communicates with S3.

Database :

- RDS : Relational database service.
- DynamoDB : Non-relational database. It really scalable and very high performance.
- Redshift
- ElastiCache : Way of caching data into cloud database.

Migration :

- Snowball : It helps in migrating Terabytes of data with ease. It is an appliance. Also some kind of compute is available.
- DMS : Database migration service.

- SMS : Server Migration service. Similar to DBS, but instead of migration of databases, it helps with migration of VMware based VMs.

Analytics :

- Athena : Helps to run SQL queries on S3.
- EMR : Big data speciality
- Cloud Search : Full managed service
- Elastic Search : Service with opensource framework. Both does the same, helps to develop search framework.
- Kinesis : Helps to analyze real-time data (finance, economy, sensex of company,etc).
- Data pipeline : Helps to move data from one place from another. (e.g. move from S3 to dynamoDB)
- Quick Sight : Business analysis tool

Security and Identity :

- IAM : Identity access management.
- Inspector : Its an agent we install on VMs. It does some kind of security check on VMs
- Certificate Manager : Free SSL certificates for domain names
- Directory service : Basically way of using active directory.
- WAF : Web application firewall. Application level security (firewall does at n/w layer this does at application layer)

Management tools :

- Cloud watch : It is used to monitor performance of your AWS (eg. EC2,etc)
- Cloud Formation : It is a way of converting physical infrastructure into codes. (instead of physical firewall,etc).
- Cloud Trail : It is a way of auditing your AWS resources. (eg. you created a new VM on AWS, it will record it)
- Opsworks : Way of automatically deployments.
- Config : Automatically monitors your environment. Unlike cloud trail, we can set alerts (e.g. users violating certain agreements while usage)
- Service Catalog : For larger enterprises. To decide which organization owned services should be organized.
- Trusted Advisors : Automatically scans your environment and gives you tips

Application services :

- Step functions : Its a way of visualizing whats going inside you application or what different microservices it is using.

- SWF : Simple web placed services. Helps in co-ordinating automated task and human triggered task.
- API Gateway : Create, publish and monitor APIs.
- Appstream : Streaming desktop applications to user
- Elastic Transcoder : Upload the video and transcode the video into different formats (e.g. different video format for laptop, tablet, mobile, etc.)

Developer Tools :

- CodeCommit : Github
- CodeBuild : Way of compiling the code in different environments
- Code Deploy : Way of deploying code in EC2 instances.
- Codepipeline

Mobile Services :

- Mobile Hub : This lets you add, configure and design mobile apps and it has its own console with different services and tools
- Cognito : Sign-up and sing-in in the mobile apps. (its in the console of mobile hub)
- Device Farm : Used to improve quality of android or ios apps by quickly testing on 100s of mobile phones.
- Mobile Analytics : cost effectively collect and analyze cost and usage data of mobile apps.
- Pinpoint : To gather data or usage of the users that are using your mobile apps (its like google analytics)

Business Productivity :

- WorkDocs : Store your work on cloud (S3) with security tight into it
- WorkMail : Exchange for AWS (way of sending and receiving emails)

IOT :

- IoT : Way of thousands and millions of devices and tracking them

Desktop and App Streaming :

- WorkSpaces : (its just like vDI). Kind of desktop in the cloud.
- AppStream2.0 : Way of streaming desktop application to users.

Artificial Intelligence :

- alexa : Amazon voice service in the cloud
- Polly : Most advanced text into speech service in cloud (many languages)
- Machine Learning
- Rekognition

Messaging :

- SNS : Simple Notification Services. Way of notifying you via email, text msg..
- SQS : Way of decoupling your apps.----- DOUBT ??
- SES : Simple email service.