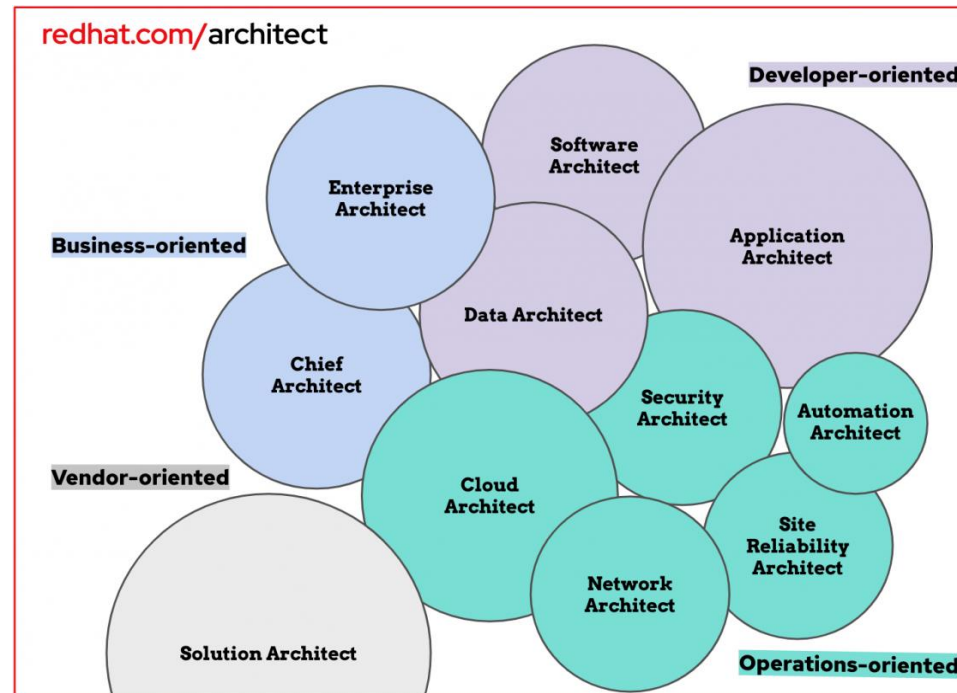
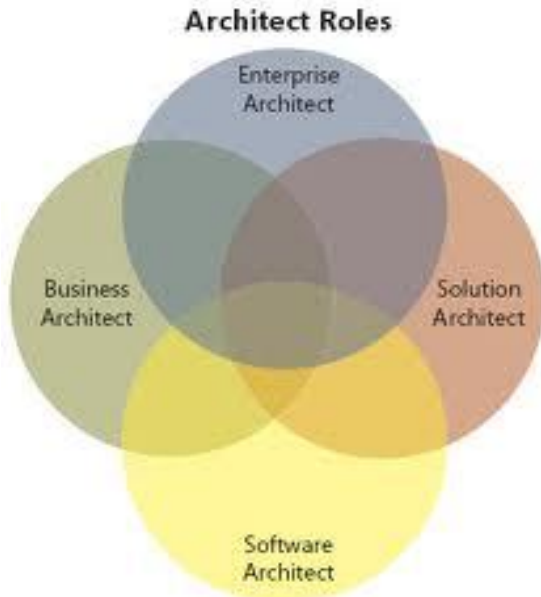




ADDITIONAL RESOURCES

Francisco Javier Moreno Diaz
fmorenod@gmail.com

Architect Types



Guide Implementation →
Measure tradeoffs to take
decisions

Deliver blueprint/diagram
Describe added business
value.

Advantages

Guide implementation

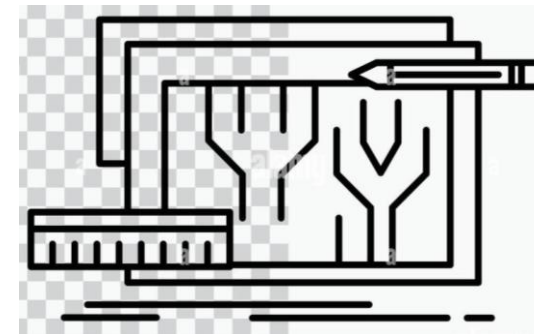
- Don't reinvent the wheel – Proven tools and simultaneous projects
- Reduce launch times
- Reduce risk and costs
- Protects the installed base
- Strengthen innovation
- Create good/best/unique practices
- Supports Open Standards and Services
- Build trust by having secure government and constant monitoring
- Gives transparency

EFFICIENCY



Time
Costs
Trained staff

IMPLEMENTATION



Design
Constant change
Open

Instructor

- **Comms Engineer**, M.Sc., University of York, UK. **Electronic Engineer**, U Javeriana.
- {Enterprise, Solutions, Software} **Architect**, **DevOps Engineer**, Low-Level **Developer**.
- 15 years of working experience on massive transport, financial companies (Banks and **Transactional Platforms**) and software companies (Current).
- 15 Cloud Certifications

 /in/fmorenod - fmorenod@gmail.com



Why you choose to certificate ?



- Account – Labs
- Community
- Market Share
- Employment Market
- Colombian/Peru Market

Amazon Web Services (AWS)

- [Free Tier](#)
- [AWS Educate Labs](#)

Gartner Market Share by years

2019

2020

2021

2022

Evaluation Criteria

1. Market share: Number of clients
2. Installed base
3. Types of products/services
4. Target market
5. Other defining characteristic

Figure 1: Magic Quadrant for Cloud Infrastructure and Platform Services



Learning Path

Practitioner: USD100 – 65 questions

Associated: USD150 – 65 questions

Professional: USD300 – 75 questions

Specialty: USD300 – 65 questions

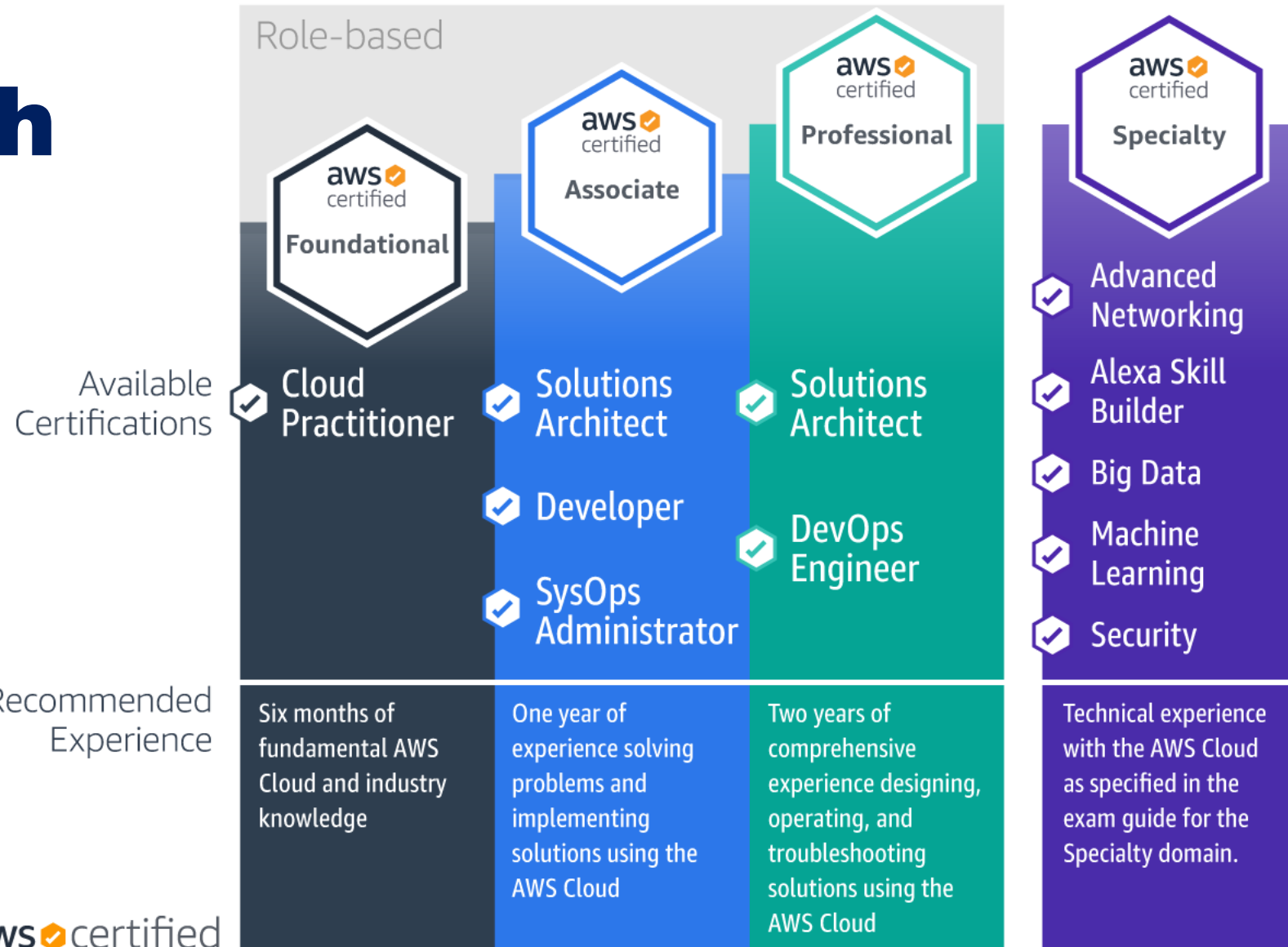
Benefits:

- 50% Next Exam if you have a valid one.
- First approach?

Errata for Specialties:

- Big Data is now Analytics
- SAP on AWS

aws certified



Version C01....now it's C03

Despite being written in 2017, it works...

Version C01 Exam Guide

Version C02 Exam Guide

Version C03 Exam Guide

No	Pillar	Design Principles	Definition	Key AWS Services
1	Security	1) Apply security at all layers 2) Enable traceability 3) Implement principle of least privileges 4) Focus on securing your system 5) Automate security best practices	1) Identity and Access Management 2) Detective controls 3) Infrastructure Protection 4) Data protection 5) Incident Response	1) IAM 2) AWS API calls, AWS Config 3) VPC 4) ELB, EBS, S3 RDS, KMS 5) IAM, Cloud formation
2	Reliability	1) Test Recover Procedures 2) Automatic recovery from failure 3) Scale horizontally to aggregate system availability 4) Stop guessing capacity 5) Manage Change in Automation	1) Foundation 2) Change Management 3) Failure Management	1) IAM, VPC 2) Cloud trail, AWS Config 3) Cloud-formation
3	Performance Efficiency	1) Democratize advanced technologies 2) Go global in minute 3) Use serverless architecture 4) Experiment more often 5) Mechanical sympathy	1) Selection 2) Review 3) Monitoring 4) Trade off	1) i) compute ii) storage iii) Database iv) network 2) AWS blog and what's new 3) Cloud watch metrics, events 4) Elastic Cache, Cloudfront, Tradeoff, Read replicas in RDS
4	Cost Optimization	1) Adopt a consumption model 2) Benefit from Economies of scale 3) Stop spending money on Data centre operations 4) Analyze and attribute expenditure 5) Use managed service to reduce cost of ownership	1) Cost-efficient Resources 2) Matching supply and demand 3) Expenditure awareness 4) Optimizing over time	1) Reserved Instances, Trusted advisor 2) Auto scaling 3) Cloud watch, SNS 4) AWS blog and What's new
5	Operational Excellence	1) Perform operations with Code 2) Align operations process to business objectives 3) Make regular, small incremental changes 4) Test for responses to unexpected events 5) Learn from operational events and failures 6) Keep operational procedure current	1) Preparation 2) Operation 3) Response	1) AWS Config, AWS Service Catalogue, SQS 2) Code commit, Code Deploy, Code build, Code pipeline 3) AWS cloud-watch

AWS-SAA Specific Path

Exam Details



Format
Multiple choice, multiple answer



Type
Associate



Delivery Method
Testing center or online proctored exam



Time
130 minutes to complete the exam



Cost
150 USD (Practice exam: 20 USD)



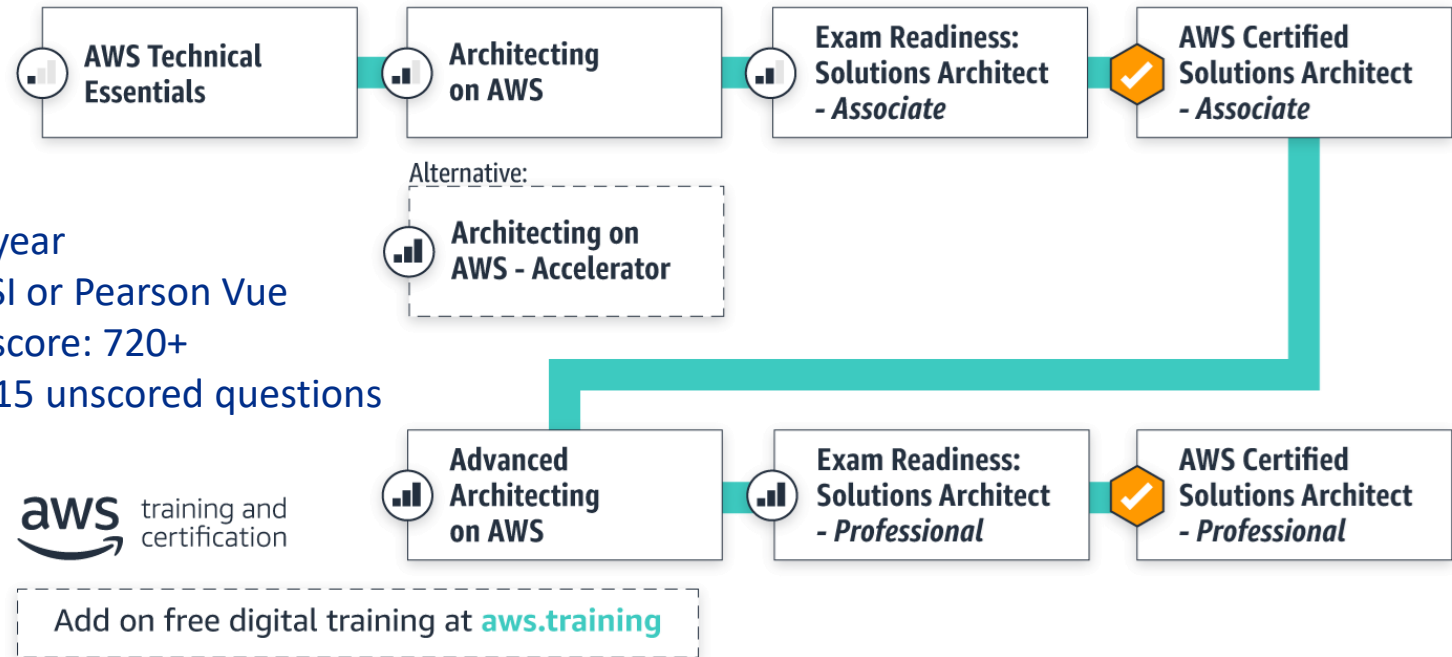
Language
Available in English, Japanese, Korean,
and Simplified Chinese

Approx. 2 mins per question



Architect Learning Path

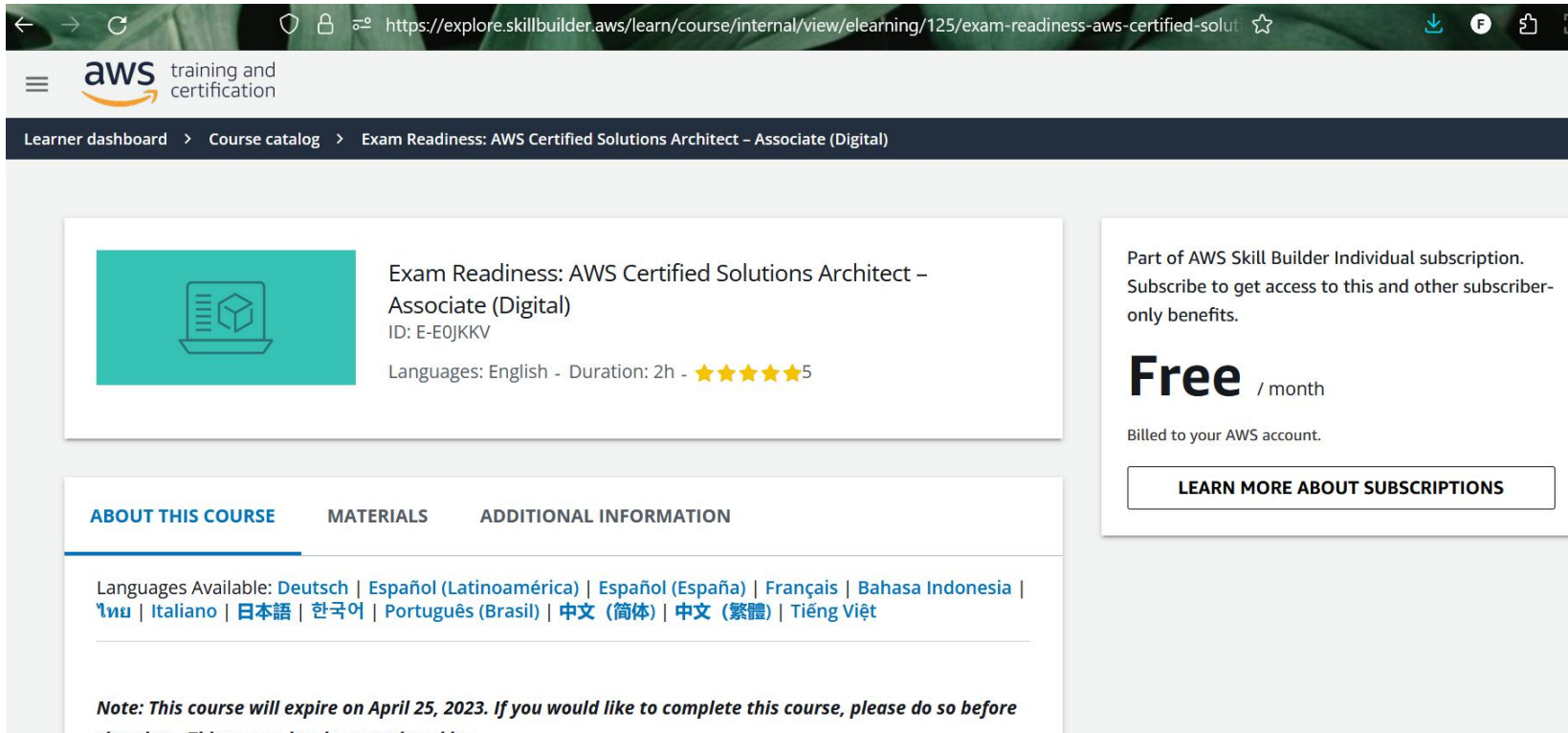
= certification = intermediate
 = foundational = advanced



Domain	% of Exam
Domain 1: Design Secure Architectures	30%
Domain 2: Design Resilient Architectures	26%
Domain 3: Design High-Performing Architectures	24%
Domain 4: Design Cost-Optimized Architectures	20%
TOTAL	100%

<https://aws.amazon.com/training/ramp-up-guides/>
<https://docs.aws.amazon.com/>
<https://skillbuilder.aws>


Exam Readiness: AWS Certified Solutions Architect – Associate (Digital)



The screenshot shows the AWS Skill Builder interface for a specific course. At the top, the browser address bar shows the URL: <https://explore.skillbuilder.aws/learn/course/internal/view/elearning/125/exam-readiness-aws-certified-solut>. The AWS logo and 'training and certification' text are in the top left. A dark navigation bar contains 'Learner dashboard', 'Course catalog', and the current course title. The main content area features a course card with a teal icon of a laptop and cube, the course title 'Exam Readiness: AWS Certified Solutions Architect – Associate (Digital)', ID 'E-E0JKKV', and a 5-star rating. Below this is a tabbed interface with 'ABOUT THIS COURSE' selected, showing available languages and a note about the course expiration on April 25, 2023. To the right, a promotional box states the course is 'Free / month' as part of an AWS Skill Builder Individual subscription, with a button to 'LEARN MORE ABOUT SUBSCRIPTIONS'.

training and certification

Learner dashboard > Course catalog > Exam Readiness: AWS Certified Solutions Architect – Associate (Digital)

 Exam Readiness: AWS Certified Solutions Architect – Associate (Digital)
ID: E-E0JKKV
Languages: English - Duration: 2h - ★★★★★5

ABOUT THIS COURSE MATERIALS ADDITIONAL INFORMATION

Languages Available: [Deutsch](#) | [Español \(Latinoamérica\)](#) | [Español \(España\)](#) | [Français](#) | [Bahasa Indonesia](#) | [ไทย](#) | [Italiano](#) | [日本語](#) | [한국어](#) | [Português \(Brasil\)](#) | [中文 \(简体\)](#) | [中文 \(繁體\)](#) | [Tiếng Việt](#)

Note: This course will expire on April 25, 2023. If you would like to complete this course, please do so before that date. This course has been replaced by

Part of AWS Skill Builder Individual subscription. Subscribe to get access to this and other subscriber-only benefits.

Free / month

Billed to your AWS account.

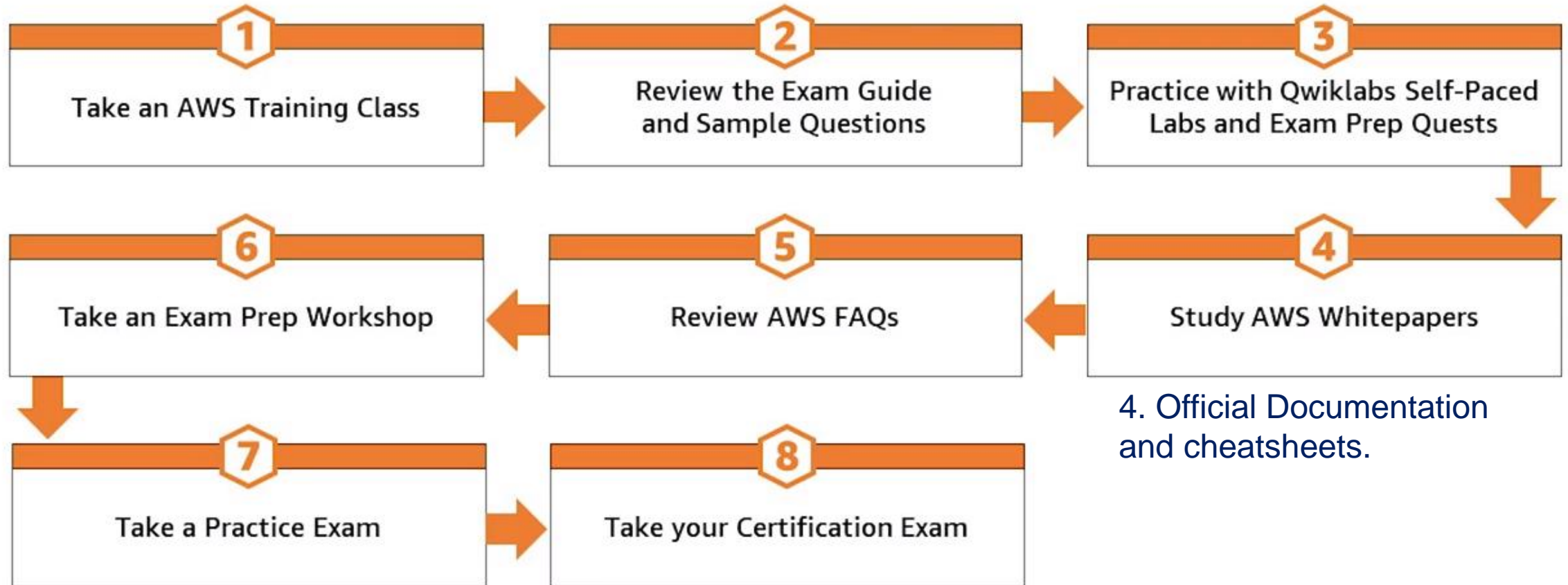
LEARN MORE ABOUT SUBSCRIPTIONS

Recommended study guide

2. Official Course:
Skillbuilder or 3rd Party
courses

1. Objectives/Plan of
the exam

3. AWS Builder Labs or
AWS Educate Labs.



4. Official Documentation
and cheatsheets.

5. Mock Exams on the course or 3rd Party Exams. Loop on 2 or 4.

Detect your weakness



Amazon VPC

VPN vs Direct Connect



Amazon Simple Storage Service

Bucket Policies vs ACL
S3 Encryption
Storage Types
Lifecycle
S3 Events
Signed URLs



**Amazon
Kinesis**

Kinesis: Streams vs. Firehose vs. Analytics
Kinesis vs. Redshift vs. EMR (you will get
scenario-based questions with these)
Athena's differences from Kinesis



Amazon RDS

Multi-AZ Rep
Read Replica
Snapshots



AWS Lambda

Limits/timeouts
Events and what services are
generally used with Lambda triggers

Questions

When presented with a scenario-based question, *read the kicker (Questions) first.*

If they give you information it is relevant to choosing between options, the most of the times.

If they don't give you a piece of information you don't needed it. Don't assume and do not add information that is not there.

Use process of elimination for every question. Look for how the answers self-eliminate

Read questions twice.

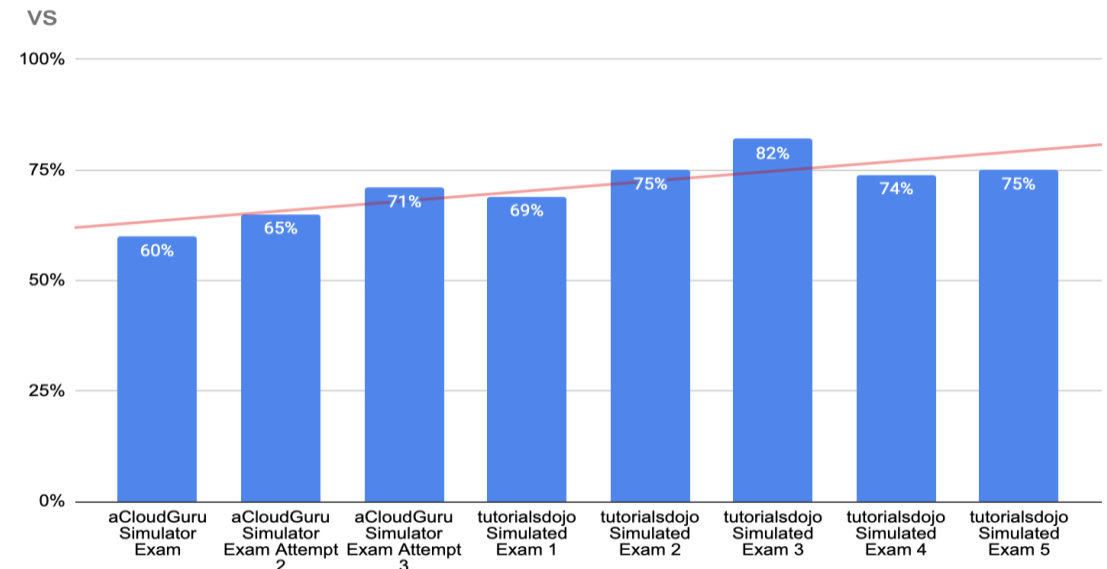
Use the “Mark for Review” feature.

Answers

Use questions to answer other questions on the real exam. You cannot assume additional services or configurations if not given

I suggest that you practice dissecting questions and answers with our practice exams (Dump Exams/Practice Exams).

Do the labs over a few times. but focus on why you are doing each step.



Cheat sheets

All:

<https://ipspecialist.net>

<https://k21academy.com>

AWS, Azure and GCP:


<https://tutorialsdjojo.com>

<https://jayendrapatil.com>

AWS:


<https://digitalcloud.training>


<https://github.com/open-guides/og-aws>

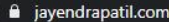


AWS CERTIFIED SOLUTIONS ARCHITECT NOTES [CHEAT SHEETS]

These in-depth Cheat Sheets for the AWS Certified Solutions Architect exam contain much every fact you need to know to successfully pass the AWS exam. The AWS Solution Architect Associate is the **latest AWS exam blueprint**. The AWS Solution Architect Associate exam is the most popular AWS certification exam. The information that is specific to this certification is organized into the same sections you see in the exam.


Compute



Storage



HOME COUPONS ABOUT ME CONTACT ME

Certification Catalog

Table of Contents [hide]

 Home Courses Intro to Cloud Computing AWS Cheat Sheets Azure


AWS Cheat Sheets


Our **AWS cheat sheets** were created to give you a bird's eye view of the important AWS services that you need to know by heart to be able to pass the different **AWS certification exams** such as the AWS Certified Cloud Practitioner, AWS Certified Solutions Architect Associate, as well as the other Associate, Professional, and Specialty certification exams. It's presented mostly in bullet points to provide you with easy-to-digest and easy-to-remember notes that will help you gain a better understanding of the different AWS services.


While these AWS cheat sheets will save you from going through all the AWS documentations, we still highly recommend that you read those as well as the whitepapers to supplement your exam preparations. Also, check out these helpful [AWS exam study guides](#) which contain tips and resources that you can use while reviewing for your AWS certification exam.

We also recommend that you answer as many [AWS practice test questions](#) as you can to further increase your chances of passing the exam. And if you want to access only the **relevant** cheat sheets for the specific AWS exams that you are preparing for then check out the [Tutorials Dojo Study Guide and Cheat Sheets eBooks](#).

All the best!

 AWS OVERVIEW

 COMPARISON OF AWS SERVICES

 AWS COMPUTE SERVICES

Practice/Mock Exams or Dumps

Paid Options :

<https://www.udemy.com/course/aws-certified-solutions-architect-associate-amazon-practice-exams-saa-c02/>

<https://www.udemy.com/course/practice-exams-aws-certified-solutions-architect-associate>

Free Options:

<https://www.examtopics.com/exams/amazon/aws-certified-solutions-architect-associate/view/1/>

<https://www.simplilearn.com/aws-solutions-architect-exam-free-practice-test>

<https://digitalcloud.training/aws-solutions-architect-free-practice-questions/>

The screenshot displays the Udeemy interface for the course 'AWS Certified Solutions Architect Associate Practice Exams'. The course is created by 'Tutorial Dojo' and has a rating of 4.6 stars from 15,447 reviews. It includes a 'Test your knowledge' section with three topics: '20 QUESTIONS', 'PASS MARK 70%', and 'EXAM COVERAGE'. Below this, there is a 'Question #1' section with a multiple-choice question about AWS KMS encryption.

Topic 1 - Single Topic

Question #1

A Solutions Architect is des...
Which action will encrypt th...

A. Place the Redshift cl...
B. Use the AWS KMS De...
C. Encrypt the Amazon EBS volumes.
D. Encrypt the data using SSL/TLS.

Reveal Solution **Discussion** **60**



What is their purpose?
What does quality level the questions have ?
Are they updated with the latest version ?

Whitepapers & FAQs

Overview of Amazon Web Services (90 Pages):

<https://d1.awsstatic.com/whitepapers/aws-overview.pdf>

AWS Storage Services Overview (54 Pages):

<https://d0.awsstatic.com/whitepapers/AWS%20Storage%20Services%20Whitepaper-v9.pdf>

AWS Security Process (97 Pages):

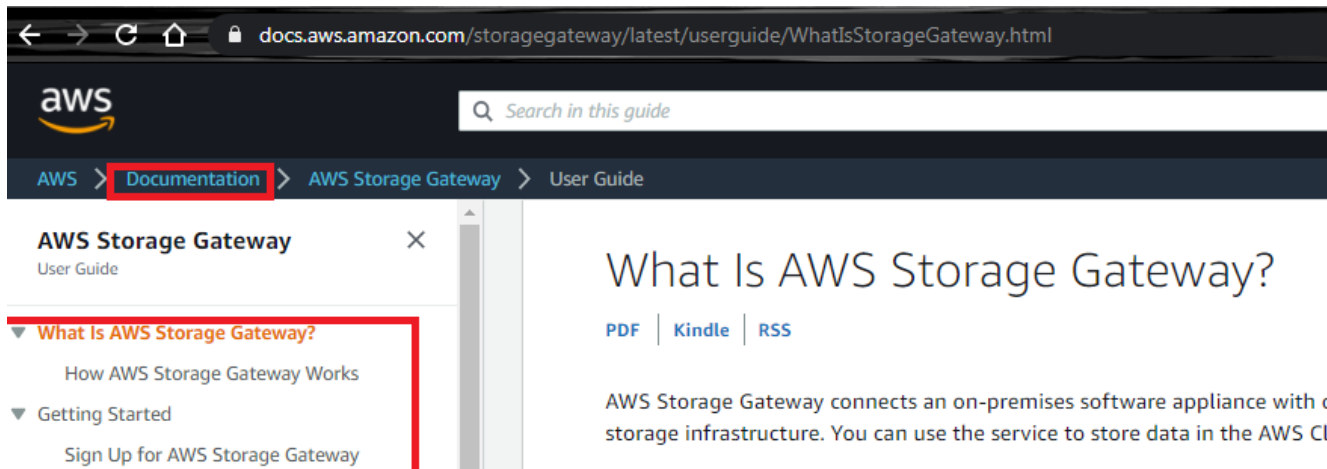
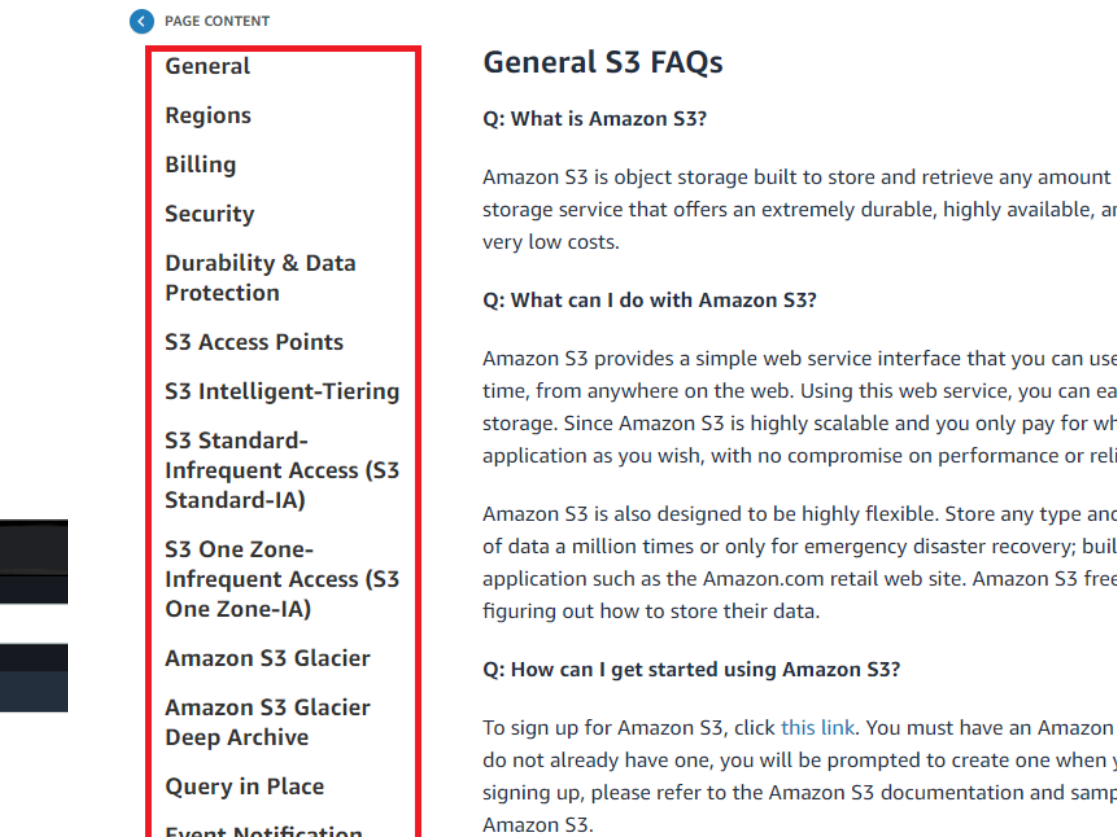
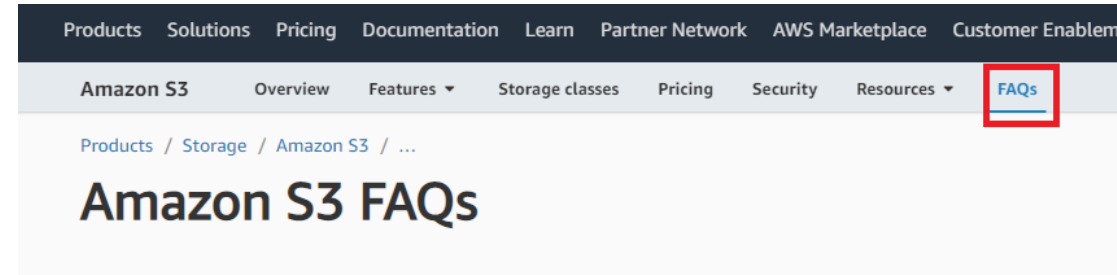
<https://d0.awsstatic.com/whitepapers/Security/AWS%20Security%20Whitepaper.pdf>

Fault-Tolerant Components on AWS (23 Pages):

<https://d1.awsstatic.com/whitepapers/aws-building-fault-tolerant-applications.pdf>

AWS Well-Architected Framework (97 Pages):

https://d1.awsstatic.com/whitepapers/architecture/AWS_Well-Architected_Framework.pdf



Proven Resources

Courses

Ryan Kronneburg: <https://www.udemy.com/aws-certified-solutions-architect-associate/>

Pluralsight: <https://app.pluralsight.com/paths/certificate/aws-certified-solutions-architect-associate>

Exams

Jon Bonso [6 exams]: <https://www.udemy.com/aws-certified-solutions-architect-associate-amazon-practice-exams/>

Ryan Kronneburg [3 exams]: <https://www.udemy.com/aws-certified-solutions-architect-associate-practice-tests>

Books (Changed due to change of AWS New Exam)

Ben Piper et al. - [AWS Certified Solutions Architect Study Guide – 2019](#)

AWS Services in Action

AWS Solutions Architect – Exam Guide IP Specialist

My Own Repo (Without Responsibility of Author or BSG)

https://github.com/fmorenod81/AWS_SAA_C03

AWS Community Heroes

<https://aws.amazon.com/heroes>

OpenGuide

<https://github.com/open-guides/og-aws>

Exam Techniques:

<https://www.toptal.com/aws-cloud-engineers/aws-certified-solutions-architect-exam-tips>

<https://help.acloud.guru/hc/en-us/articles/115002526813-How-to-correctly-answer-AWS-exam-questions>

Experiences:

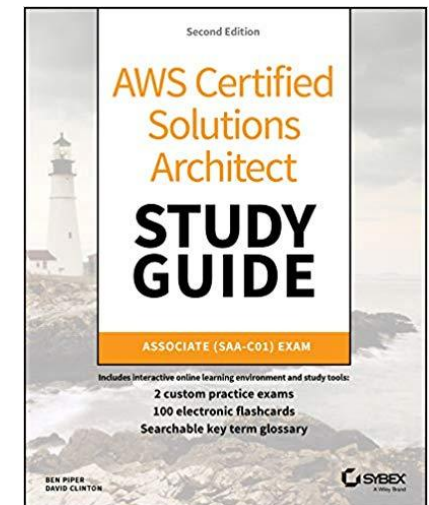
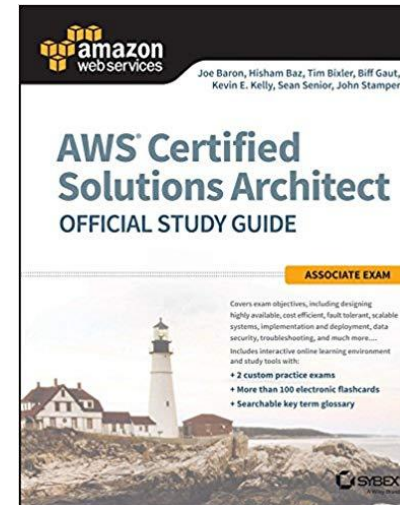
<https://reece.tech/posts/how-to-pass-aws-solution-architect-exam/>



PLURALSIGHT



Udemy





There is no cloud
it's just someone else's computer

(..) a model for enabling **ubiquitous**, **convenient**, **on-demand** network access to a **shared pool** of **configurable** computing resources (e.g., networks, servers, storage, applications, and services) that can be **rapidly provisioned** and released with **minimal management** effort or service provider interaction.

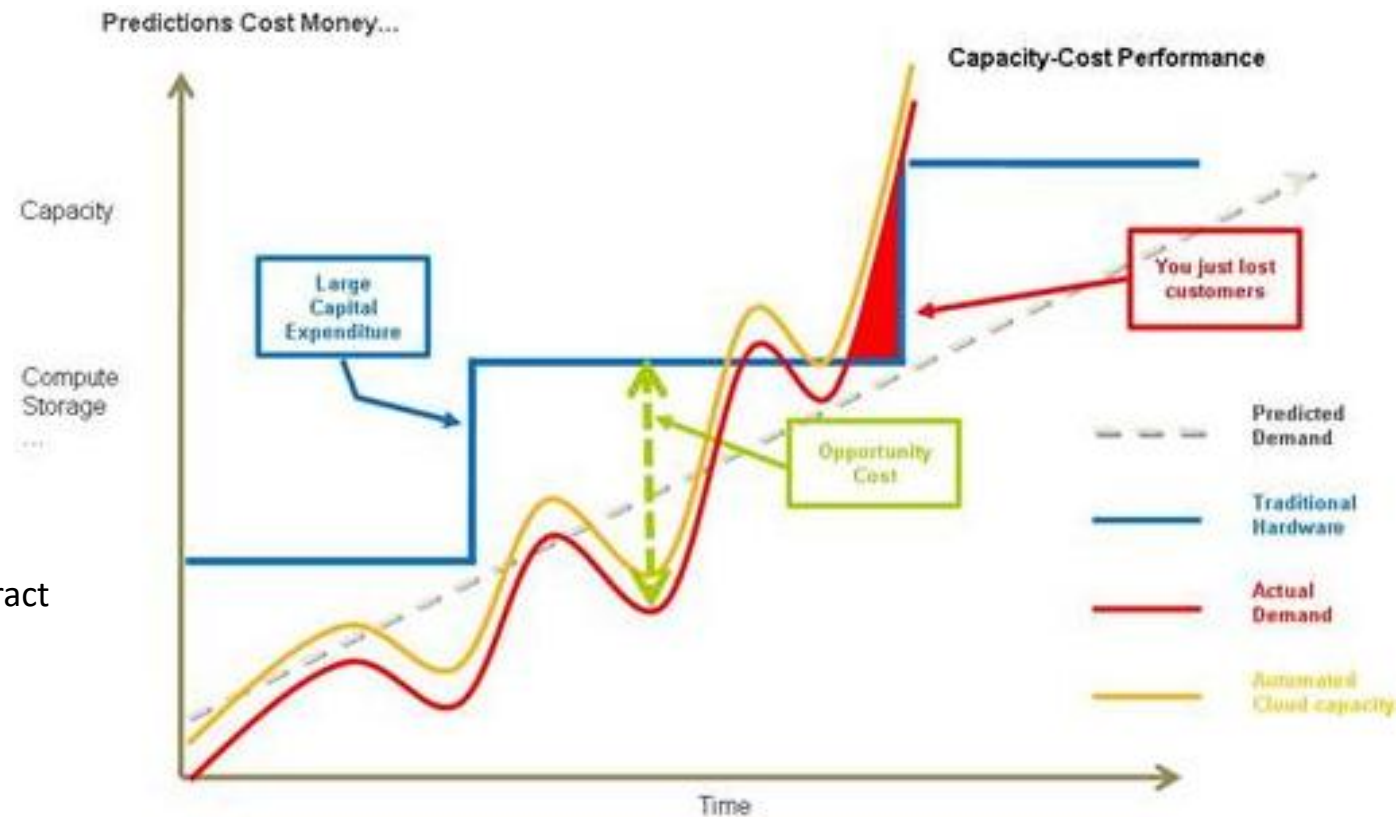
NIST Definition. SP 800-145



1. **Escalable/Ajustado**
2. **Disponibles**
3. **Automatizables**

Cloud Costs

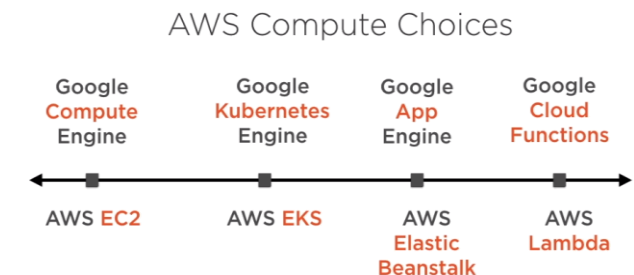
- Infrastructure Costs: CAPEX and OPEX
- Capacity Expenditure (CAPEX): license? Upgrades?
- Operational Expenditure (OPEX)
- Total Cost of Ownership - Both (TCO) defined on a Business Case
 - Include: Salaries, Hardware, Space, Cooling, Datacenter Contract
- [Introduction to \(AWS\) Economy](#)
- [Cloud Economics Center](#)



Scalability vs Elasticity

- Scalable vs Elasticity
- Elasticity out (More machines)
 - Scale In, Scale Out
- Elasticity up (More resources)
 - Scale Up, Scale Down
- How does Cloud take the decision ?
 - Datapoints, Timestamp, Metrics, Dimensions.
- Which method can work better?
 - Reactive or Proactive (Predictive) Actions
- Other Terms:
 - Fault Tolerance
 - High Availability (HA): LB, AS and CDN
 - Disaster Recovery Plan – DRP or Business Continuity Plan.

	Scalability	Elasticity
What is it?	Scalability is the ability of a system to uphold its functionality when the size or volume changes	Elasticity is the ability to dynamically manage available resources for addressing the size or volume
Use case	To meet the static increase in the workload	To meet the dynamic increase in the workload
Type	Strategic operation	Tactical approach
Focuses on	Design/architecture	Operations
Resource provisioning	To exceed future demands	To meet the present demand
Consideration	Medium- and long-term predictions	Short-term demand
Execution by	Typically scheduled	Typically triggered by automation



Every major cloud platform supports the same range of compute choices

Services Models of Cloud Computing

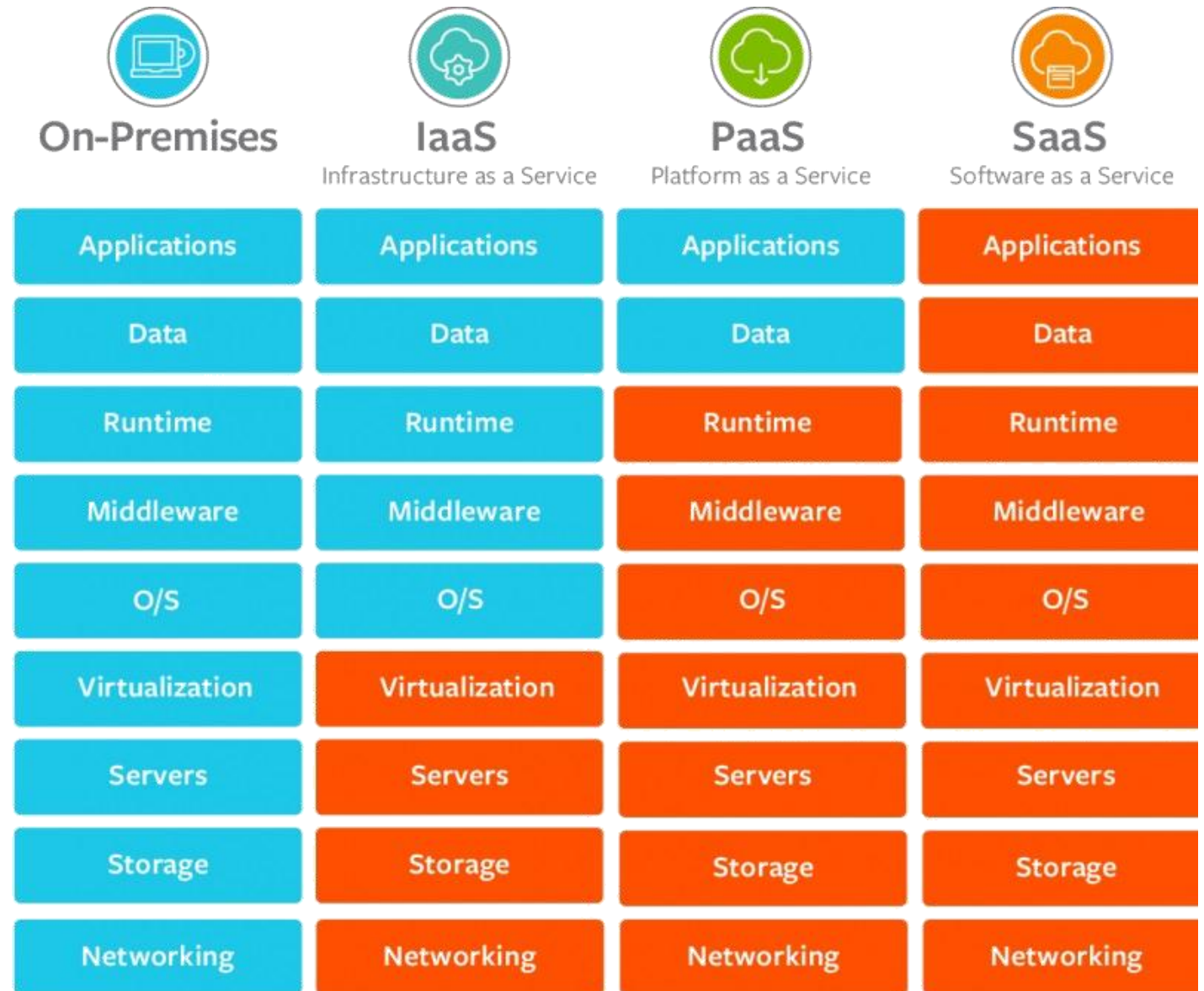
Other additional as-a-Services:

DBaaS

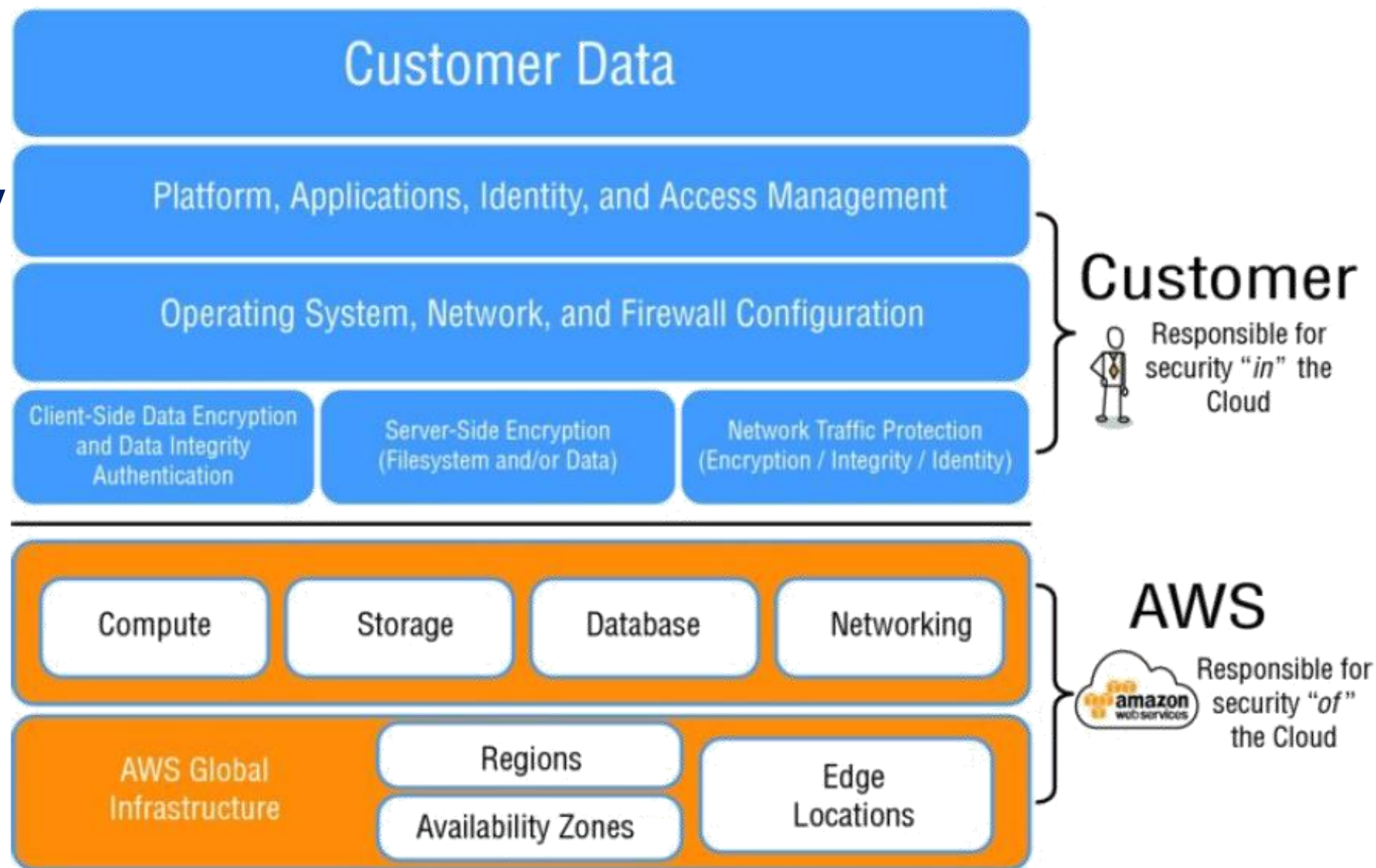
LBaaS

FaaS

....



Shared Responsibility Model



AWS well-architected framework

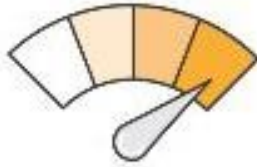
Set of questions you can use to evaluate how well an architecture is aligned to AWS best practices



Security



Reliability



Performance
efficiency



Cost optimization



Operational
excellence

