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Question #201

Topic 1

A company is designing a new web service that will run on Amazon EC2 instances behind an Elastic Load Balancer. However, many of the web service clients can only reach IP addresses whitelisted on their firewalls.

What should a solutions architect recommend to meet the clients' needs?

- A. A Network Load Balancer with an associated Elastic IP address.
- B. An Application Load Balancer with an associated Elastic IP address
- C. An A record in an Amazon Route 53 hosted zone pointing to an Elastic IP address
- D. An EC2 instance with a public IP address running as a proxy in front of the load balancer

Correct Answer: A

Abdullah22 2 months, 2 weeks ago

A. this was in my exam today . passed.

upvoted 17 times

manoj101 9 months, 4 weeks ago

A is correct.

you can assign elastic IP address to a NLB

upvoted 14 times

syu31svc 3 months ago

<https://aws.amazon.com/blogs/networking-and-content-delivery/using-static-ip-addresses-for-application-load-balancers/>

Diagram displayed supports A as the answer

upvoted 1 times

DarrylNg 3 months, 2 weeks ago

A is correct. Can't attach EIP to ALB

upvoted 2 times

KK_uniq 3 months, 2 weeks ago

Network Load Balancer automatically provides a static IP per Availability Zone (subnet) that can be used by applications as the front-end IP of the load balancer. Network Load Balancer also allows you the option to assign an Elastic IP per Availability Zone (subnet) thereby providing your own fixed IP.

upvoted 5 times

KK_uniq 3 months, 2 weeks ago

Only network loadbalancer can be used for elastic IP

upvoted 1 times

Yogi 3 months, 3 weeks ago

Ans=A. Network Load Balancer with an associated Elastic IP address.

upvoted 1 times

r8ish 5 months, 1 week ago

should be C

upvoted 3 times

fidaforever 6 months ago

ALB Can assigned with IP address both ipv4 & ipv6

<https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-ip-address-type.html>

upvoted 1 times

upvoted 1 times

✉ **Bbm2020** 6 months, 2 weeks ago

NLB enables static IP addresses for each Availability Zone. These static addresses don't change, so they are good for our firewalls' whitelisting. However, NLB allows only TCP traffic, no HTTPS offloading, and they have none of the nice layer 7 features of ALB.

upvoted 1 times

✉ **SangyaB** 6 months, 1 week ago

NLB supports TLS/HTTPS offloading : <https://aws.amazon.com/about-aws/whats-new/2019/01/network-load-balancer-now-supports-tls-termination/>

upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAAaa

upvoted 3 times

✉ **amitshinde14** 8 months, 3 weeks ago

A is correct

upvoted 2 times

✉ **sonu6252** 9 months, 2 weeks ago

A.

<https://aws.amazon.com/blogs/networking-and-content-delivery/using-static-ip-addresses-for-application-load-balancers/>

upvoted 5 times

✉ **tfe** 9 months, 3 weeks ago

Should be B. "web service" -> Application Load Balancer , not Network load balancer.

upvoted 2 times

✉ **tfe** 9 months, 3 weeks ago

Didn't knew that we cannot set static ip on ALB, so Yes. A.

upvoted 7 times

✉ **Bilalonline** 8 months, 1 week ago

Same here. In this case A is correct

upvoted 2 times

✉ **JohnnyS20** 9 months, 3 weeks ago

Unofrtunately, you can't assign an EIP to an ALB. The only options are:

1. Assign EIP to instance in front of ALB
2. Assign EIP to NLB in front of ALB
3. Use Route 53 --- not sure of the full details here

Reference:

https://acloud.guru/forums/aws-csysops-2019/discussion/-LzN1_Aw0dL3Z98CkB1/Using%20EIP%20for%20ALB

<https://www.bluematador.com/blog/static-ips-for-aws-application-load-balancer>

upvoted 23 times

✉ **Amitv2706** 8 months, 3 weeks ago

Route53 is needed when we are using domain names but here we need to publish the webapp using IP address, so Route53 is out of question.

A is the correct answer.

upvoted 8 times

✉ **Rahul74427** 9 months, 2 weeks ago

Nice information

upvoted 3 times

Question #202

Topic 1

A company wants to host a web application on AWS that will communicate to a database within a VPC. The application should be highly available. What should a solutions architect recommend?

- A. Create two Amazon EC2 instances to host the web servers behind a load balancer, and then deploy the database on a large instance.
- B. Deploy a load balancer in multiple Availability Zones with an Auto Scaling group for the web servers, and then deploy Amazon RDS in multiple Availability Zones.
- C. Deploy a load balancer in the public subnet with an Auto Scaling group for the web servers, and then deploy the database on an Amazon EC2 instance in the private subnet.
- D. Deploy two web servers with an Auto Scaling group, configure a domain that points to the two web servers, and then deploy a database architecture in multiple Availability Zones.

Correct Answer: B

✉  **manoj101** Highly Voted  9 months, 4 weeks ago

B is correct.

upvoted 26 times

✉  **JohnnyS20** Highly Voted  9 months, 3 weeks ago

Anything that says something like "..deploy database to an instance.." is not highly scalable.

The best way to take advantage of the available AWS services for databases.

From here, you can already rule out A,C, and D

Correct answer: B

upvoted 17 times

✉  **Yvette_Lau** 8 months, 4 weeks ago

but the question didn't require scalable, it requires available

upvoted 3 times

✉  **DarthYoda** 7 months, 2 weeks ago

Yes it does, but what @JohnnyS20 means is that AWS would want you to always use their own DB's and not deploy databases on instances

upvoted 3 times

✉  **Delooo** Most Recent  2 months, 1 week ago

B is correct - Hint Highly available

upvoted 1 times

✉  **syu31svc** 3 months ago

"highly available" -> Multi AZ

Answer is B

upvoted 6 times

✉  **KK_uniq** 3 months, 2 weeks ago

Correct answer is B for sure.

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=B. Deploy a load balancer in multiple Availability Zones with an Auto Scaling group for the web servers, and then deploy Amazon RDS in multiple Availability Zones.

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Answer=B

upvoted 1 times

✉  **Ping001** 4 months, 1 week ago

Folks, wouldn't the answer be C based on the fact that the question wants the APPLICATION to be highly available but doesn't mention about the DB being highly available? Also the first part of the question says they want to host an app that will communicate to a DB INSIDE a VPC? C fits both those requirements.

upvoted 3 times

✉  **Kampton** 4 months ago

would the application be available if and when the database isn't? Why would you want to have a single point of failure to make application not be available.

upvoted 1 times

myutran 5 months ago

Answer: B

upvoted 1 times

Jay_12 5 months, 2 weeks ago

C - The question only wants the application HA not the db. B is better for real world.

upvoted 1 times

kauls 4 months, 3 weeks ago

Bro, there is no point in application servers being highly available if they cannot query the DB which is standalone and failed in case of AZ failure. The solution should work overall.

upvoted 1 times

freemun05 2 months, 3 weeks ago

we don't know the architecture, maybe the APP. doesn't need to talk to DB all the time. C should be enough , but for real life scenario -C is the best. The description is unclear to be honest.

upvoted 1 times

kauls 4 months, 3 weeks ago

So, B is correct

upvoted 1 times

Ritz40 5 months, 3 weeks ago

I will opt "B"

upvoted 1 times

bleble00001 6 months, 1 week ago

Why not D? The only problem I see in D is the part "configure a domain that points to the two web servers", which pretty much looks like bad wording. On the other hand, the question says "a database", NOT "a relational database". Therefore I don't think that you can jump into going forward with RDS just like that...

upvoted 1 times

Joy1986 6 months, 1 week ago

B is correct

upvoted 1 times

anpt 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBB

upvoted 3 times

DarkMatterOne 7 months ago

Why RDS? Question just says db...

Possibly C?

upvoted 1 times

Bbm2020 6 months, 2 weeks ago

If you choose C how do you solve the problem? the question want high availability solution,it's not about type of DB.

upvoted 1 times

Aldrin26 7 months, 3 weeks ago

My answer is C. B is incorrect in my opinion, why would you deploy two RDS in multi-az. That is costly. I would rather configure my RDS with multi-az read replicas.

upvoted 1 times

DarthYoda 7 months, 2 weeks ago

Yes it is costly, but the question wants a high availability solution right? Also, the problem is not performance issues as you are suggesting RR So B is the answer

upvoted 2 times

freemun05 2 months, 3 weeks ago

the question says "The application should be highly available, not DB, not the entire system, just APP." it's confusing to be honest.

upvoted 1 times

Bilalonline 8 months, 1 week ago

I go with B

upvoted 2 times

Question #203

Topic 1

A company's packaged application dynamically creates and returns single-use text files in response to user requests. The company is using Amazon CloudFront for distribution, but wants to further reduce data transfer costs. The company cannot modify the application's source code. What should a solutions architect do to reduce costs?

- A. Use Lambda@Edge to compress the files as they are sent to users.
- B. Enable Amazon S3 Transfer Acceleration to reduce the response times.
- C. Enable caching on the CloudFront distribution to store generated files at the edge.
- D. Use Amazon S3 multipart uploads to move the files to Amazon S3 before returning them to users.

Correct Answer: A

 **QasimNaeem** Highly Voted  9 months, 3 weeks ago

Correct Ans is A: Use Lambda@Edge. See the question "single-use text file" will be sent in response. Single-use text file means that file will be used only one time so what's the benefit of caching it on the CloudFront as it will not be able to be used again. So what other thing can be done is to use Lambda@Edge to compress the file which will reduce the size of the file and hence less data will be transferred and less will be the transfer charges.

upvoted 52 times

 **bus_asdf** 9 months ago

I agree! Thanks

upvoted 2 times

 **JohnnyS20** Highly Voted  9 months, 3 weeks ago

To reduce the transfer costs, content should be cached at the edges.

To further reduce transfer costs, enable processing of the requests on the edges.

By doing this, the Edge locations will have much fewer going back to the origin server to process the requests.

The short requests can already be processed and then immediately returned to the user, while all being done at the Edge Locations.

Correct answer: Lambda@Edge

upvoted 26 times

 **HMC_37** 6 months, 2 weeks ago

By compressing the file using Lambda@Edge, it will also reduce the size and transfer costs.

upvoted 2 times

 **John_Frum** 9 months, 3 weeks ago

But they say "single use" text files. Since files are different caching is pointless.

upvoted 4 times

 **Liongeek** 8 months, 4 weeks ago

In this case, you're using CloudFront to reduce the data transfer cost by sending and returning the data to the application and reducing the cost of provisioning EC2 instances by using Lambda@Edge which is a service available in the CloudFront Edges.

upvoted 1 times

 **tinyshare** Most Recent  5 days, 17 hours ago

Still the question is: CloudFront can compress files by itself, why Lambda@Edge is even needed?

upvoted 1 times

 **tinyshare** 2 weeks, 1 day ago

unable to change the source code is not an issue because the compression happens at the edge, right before sending to the user.

However, CloudFront can compress files by itself, why Lambda@Edge is even needed?

https://docs.amazonaws.cn/en_us/AmazonCloudFront/latest/DeveloperGuide/ServingCompressedFiles.html

upvoted 1 times

 **Abdullah22** 2 months, 2 weeks ago

A. this was in my exam today . passed.

upvoted 12 times

 **Kopa** 2 months, 3 weeks ago

What should a solutions architect do to reduce costs? If we use Lambda it will consume some money, I don't know exactly how much money we can save with Lambda, so I'm more for C for caching.

upvoted 1 times

 **sarah_t** 2 months, 3 weeks ago

Caching is pointless here, it's explicitly mentioned in the text that the files are single-use.

upvoted 1 times

 **syu31svc** 3 months ago

<https://aws.amazon.com/lambda/edge/>:

"Lambda@Edge is a feature of Amazon CloudFront that lets you run code closer to users of your application, which improves performance and reduces latency. With Lambda@Edge, you don't have to provision or manage infrastructure in multiple locations around the world. You pay only for the compute time you consume - there is no charge when your code is not running."

With Lambda@Edge, you can enrich your web applications by making them globally distributed and improving their performance — all with zero server administration. Lambda@Edge runs your code in response to events generated by the Amazon CloudFront content delivery network (CDN). Just upload your code to AWS Lambda, which takes care of everything required to run and scale your code with high availability at an AWS location closest to your end user."

Answer is A

upvoted 2 times

 **DarrylNg** 3 months, 2 weeks ago

A. Process of elimination. "Single-Use Text-file"

upvoted 3 times

 **KK_uniq** 3 months, 2 weeks ago

Should be Lambda edge

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Correction, using caching to reduce data xfr costs.

Answer: C. Enable caching on the CloudFront distribution to store generated files at the edge.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Answer=A. Use Lambda@Edge to compress the files as they are sent to users.

upvoted 2 times

 **Ritz40** 5 months, 3 weeks ago

Caching is out of question as files are of single use.

A - is most suitable answer

upvoted 3 times

 **mode** 6 months, 3 weeks ago

If you want to reduce network cost compress the data with Lambda@Edge could be very useful, so Answer is A

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAAAAAAAA

upvoted 3 times

 **lodo** 7 months, 1 week ago

A is correct, cause the need to reduce costs. Compressed files -> less outbound traffic. Cache is useless as the file are single-user intended

upvoted 2 times

 **amxexam** 7 months, 2 weeks ago

A - best alternative. Also, lambda is cost-effective in this case. Will work.

B - We are not talking about the speed of the download, its more of cost reduction, S3 with TA will increase the cost. So won't work.

C - No point of caching everything a new file is created although static. So won't work.

D - We are not talking about the speed of the download, will not reduce cost. So won't work.

So A.

upvoted 2 times

 **hp298** 7 months, 3 weeks ago

Single use text files. Caching does not help.

upvoted 1 times

Question #204

Topic 1

A database is on an Amazon RDS MySQL 5.6 Multi-AZ DB instance that experiences highly dynamic reads. Application developers notice a significant slowdown when testing read performance from a secondary AWS Region. The developers want a solution that provides less than 1 second of read replication latency.

What should the solutions architect recommend?

- A. Install MySQL on Amazon EC2 in the secondary Region.
- B. Migrate the database to Amazon Aurora with cross-Region replicas.
- C. Create another RDS for MySQL read replica in the secondary Region.
- D. Implement Amazon ElastiCache to improve database query performance.

Correct Answer: *B*

Reference:

<https://aws.amazon.com/rds/aurora/global-database/>

✉  **Cloudtraining** Highly Voted 8 months, 4 weeks ago

Why not "C" ? create a MySQL read replica on the secondary region
upvoted 11 times

✉  **boriscasoy** 4 months ago

simple, the question states "what solution the architect should recommend?". AWS wants you to offer the best solution available (also for then). Why shouldn't you offer Aurora as a Certified AWS Solution Architect?
upvoted 4 times

✉  **zxing233** 3 weeks, 1 day ago

because you should stand align with Client's benefit not AWS's lol....
upvoted 3 times

✉  **zxing233** 3 weeks, 1 day ago

However I will go with Aurora bcuz less than 1 second latency
upvoted 3 times

✉  **GameLift** 2 months, 1 week ago

Why shouldn't you offer Aurora as a Certified AWS Solution Architect? imao
upvoted 2 times

✉  **Cloudy_Guy** Highly Voted 8 months, 3 weeks ago

While you can do a simple RDS MySQL read replica to improve the performance whats the need for AWS Aroura cross replication? Hence "C" is the write answer
upvoted 8 times

✉  **Respect** 1 month, 1 week ago

If C is the write answer, what is the right answer?
upvoted 9 times

✉  **vamshidhara** Most Recent 1 week, 4 days ago

B
less than 1 second of read replication latency
upvoted 1 times

✉  **tinyshare** 2 weeks, 1 day ago

Answer B:
Aurora Replicas: Cross-region replication under 1 second
RDS Replicas: Cross-region replication seconds
upvoted 2 times

✉  **Nilya08** 3 weeks, 4 days ago

B

Your applications enjoy quick data access regardless of the number and location of secondary regions, with typical cross-region replication latencies below 1 second.
upvoted 2 times

✉  **borisrabin03** 2 months ago

why not d , isnt caching the fastest ?
upvoted 1 times

✉️ **ansh18061986** 1 month, 3 weeks ago

Question talks about the Dynamic reads , So caching won't help much .

upvoted 2 times

✉️ **ansh18061986** 2 months ago

I will go with option B - Aurora Global database

upvoted 1 times

✉️ **dapik** 2 months, 2 weeks ago

Should be "B"

As an alternative to cross-Region read replicas, you can scale read operations with minimal lagtime by using an Aurora global database. An Aurora global database has a primary Aurora DB cluster in one AWS Region and up to five secondary read-only DB clusters in different Regions. Each secondary DB cluster can include up to 16 (rather than 15) Aurora Replicas. Replication from the primary DB cluster to all secondaries is handled by the Aurora storage layer rather than by the database engine, so lagtime for replicating changes is minimal—typically, less than 1 second.

upvoted 6 times

✉️ **syu31svc** 3 months ago

<https://aws.amazon.com/rds/aurora/global-database/>:

"Your applications enjoy quick data access regardless of the number and location of secondary regions, with typical cross-region replication latencies below 1 second"

B is the answer

upvoted 4 times

✉️ **KK_uniq** 3 months, 2 weeks ago

Q: Can I create Aurora Replicas on the cross-region replica cluster?

Yes, you can add up to 15 Aurora Replicas on each cross-region cluster, and they will share the same underlying storage as the cross-region replica. A cross-region replica acts as the primary on the cluster and the Aurora Replicas on the cluster will typically lag behind the primary by 10s of milliseconds.

In the FAQ for RDS, there is no such SLA mentioned. AWS also recommends Aurora for performance and availability

upvoted 2 times

✉️ **Yogi** 3 months, 3 weeks ago

Ans=B. Migrate the database to Amazon Aurora with cross-Region replicas.

upvoted 1 times

✉️ **myutran** 5 months ago

Answer: B

upvoted 1 times

✉️ **Jay_12** 5 months, 3 weeks ago

B - Aurora is a global Database that uses storage-based replication with typical latency of less than 1 second.

upvoted 3 times

✉️ **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBB

upvoted 7 times

✉️ **davidy2020** 7 months, 1 week ago

Answer is B.

C not correct due to condition not met - less than 1 second of read replication latency

Amazon RDS for MySQL uses asynchronous replication and sometimes the replica isn't able to keep up with the primary DB instance. This can cause replication lag.

<https://aws.amazon.com/premiumsupport/knowledge-center/rds-mysql-high-replica-lag/>

upvoted 4 times

✉️ **etu2022** 7 months, 2 weeks ago

Ans B : additional Clue RDS MySQL 5.6 To Aurora : It has to be 5.6 or 5.7

upvoted 1 times

✉️ **DarthYoda** 7 months, 2 weeks ago

I honestly want to go with C here as per this post and also the fact that the solution provides less than 1 second of read replication

<https://aws.amazon.com/blogs/aws/cross-region-read-replicas-for-amazon-rds-for-mysql/>

upvoted 1 times

Question #205

A company is planning to deploy an Amazon RDS DB instance running Amazon Aurora. The company has a backup retention policy requirement of 90 days.

Which solution should a solutions architect recommend?

- A. Set the backup retention period to 90 days when creating the RDS DB instance.
- B. Configure RDS to copy automated snapshots to a user-managed Amazon S3 bucket with a lifecycle policy set to delete after 90 days.
- C. Create an AWS Backup plan to perform a daily snapshot of the RDS database with the retention set to 90 days. Create an AWS Backup job to schedule the execution of the backup plan daily.
- D. Use a daily scheduled event with Amazon CloudWatch Events to execute a custom AWS Lambda function that makes a copy of the RDS automated snapshot. Purge snapshots older than 90 days.

Correct Answer: B

Reference:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithAutomatedBackups.html

✉  **QasimNaeem** Highly Voted 9 months, 3 weeks ago

For me answer is C. how can one store RDS automated snapshots to a user-managed S3 bucket as far as I know RDS store manual and automated snapshots in its own managed S3 bucket which cannot be seen so how we can set a lifecycle policy on that. On the other hand we can control how frequently to take backup and how long to retain that backup in the backup plan.

<https://docs.aws.amazon.com/aws-backup/latest/devguide/how-it-works.html>

upvoted 20 times

✉  **noahsark** 2 months, 1 week ago

I think its B.

C is wrong. It seems you cannot create AWS Backup job. These are only records. Go to your AWS Free Trial -> AWS Backup -> Jobs -> and you will see "Backup Jobs are records of your scheduled or on-demand backups."

Daily schedule of execution is part of Backup plans, NOT Jobs. Go to your AWS Free Trial -> AWS Backup -> Backup Plans -> Create Backup Plan -> Build a new plan -> Backup rule configuration -> Backup frequency -> dropdown -> Daily.

upvoted 2 times

✉  **noahsark** 2 months ago

crap. there's a similar question in tutorials dojo and their answer is C.

upvoted 2 times

✉  **anpt** Highly Voted 6 months, 2 weeks ago

CCCCCCCCCC

upvoted 14 times

✉  **pyro_mann** 5 months, 2 weeks ago

In aws backup service, you create backup plan then assign the resource (aurora DB) to the backup plan. There is no backup job to create. In this case C will be wrong abd the answer will be B.

upvoted 2 times

✉  **noahsark** 2 months, 1 week ago

you have a point. Why do we need for Backup job? The Backup frequency (daily) is already included in Backup Plans -> Backup rule configuration.

upvoted 1 times

✉  **guru_ji** 6 months, 1 week ago

This time you are correct !!

upvoted 3 times

✉  **Aleladocicco** Most Recent 5 days, 12 hours ago

The correct is C guys.

Check this below:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Managing.Backups.html>

"You can specify a backup retention period, from 1 to 35 days, when you create or modify a DB cluster. Aurora backups are stored in Amazon S3. If you want to retain a backup beyond the backup retention period, you can also take a snapshot of the data in your cluster volume."

upvoted 1 times

✉  **Aleladocicco** 5 days, 12 hours ago

Answer is B guys.

Check this below:

<https://www.examtopics.com/exams/amazon/aws-certified-solutions-architect-associate-saa-c02/view/>

"You can specify a backup retention period, from 1 to 35 days, when you create or modify a DB cluster. Aurora backups are stored in Amazon S3. If you want to retain a backup beyond the backup retention period, you can also take a snapshot of the data in your cluster volume."

upvoted 1 times

Mekala 1 week, 1 day ago

Even if we exclude C - for "AWS Backup job creation" is incorrect, B says "Configure RDS to copy AUTOMATED snapshots", there is no such provision and we can only export the existing snapshot to S3. So then B is also incorrect rt?

upvoted 1 times

cianal 3 weeks, 3 days ago

B is correct retention of rds back up is only upto 35 days

upvoted 3 times

sharonge 3 weeks, 5 days ago

Answer is B. Aurora backup retention period ranges from 1 to 35 days. If you need longer retention period, take snapshots

upvoted 4 times

CKLOH 1 month, 1 week ago

Ans =C

1. <https://aws.amazon.com/backup/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

2. <https://docs.aws.amazon.com/aws-backup/latest/devguide/creating-a-backup-plan.html>

upvoted 1 times

madatt 1 month, 1 week ago

it's C. Not B. Aurora backup costs appears in billing under RDS Service with Usage Type: Aurora:BackupUsage. It is not billed as an S3 usage cost. Although the backup is stored in S3, it's a managed service and not visible to the customer. I work with AWS billing and it definitely does not appear as an S3 charge.

upvoted 1 times

FERIN_01 1 month, 1 week ago

AWS Back-up can keep maximum 30 days retention period.

Automatic snapshots can be keep for maximum 100 copies.

As per question proposed solution need to provide 90 days retention period.

Option B. seems to be more close to solution

upvoted 1 times

Diomer9848 1 month, 1 week ago

The answer is C

"When using AWS Backup with Amazon RDS and Amazon Aurora, you can centralize your compliance and policy control for backups, increase security choices for your organization, and access instant enterprise level features and functionality"

When using AWS Backup with Amazon RDS and Amazon Aurora, you can centralize your compliance and policy control for backups, increase security choices for your organization, and access instant enterprise level features and functionality.

<https://aws.amazon.com/es/getting-started/hands-on/amazon-rds-backup-restore-using-aws-backup/>

upvoted 1 times

borisrabin03 2 months ago

the answer is c for sure, you can manage amazon aurora database with aws backup

upvoted 1 times

jkwek 2 months, 1 week ago

Answer C is more logical. It relates to AWS standard way of backups. Why would anybody make it so complicated as to use S3 as backups for answer B?

upvoted 1 times

bubai01 2 months, 2 weeks ago

sorry B is correct as both automated and manual snapshot can be copied

upvoted 1 times

noahsark 2 months, 1 week ago

I think B is correct.

C is wrong. It seems You may not need to create an AWS Backup job. On your AWS Free Trial, go to AWS Backup -> Jobs -> and you will see "Backup Jobs are RECORDS of your scheduled or on-demand backups." LOL.

Daily schedule of execution is part of Backup plans, NOT Jobs. On your AWS Free Trial, go to AWS Backup -> Backup Plans -> Create Backup Plan -> Build a new plan -> Backup rule configuration -> Backup frequency -> dropdown -> Daily.

With that, obviously C is wrong.

upvoted 1 times

bubai01 2 months, 2 weeks ago

B is not correct was you cannot move automated snapshot , if you have to retain backup for more than 35 days you need to take manual backup so C is correct

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Managing.Backups.html>

upvoted 1 times

 **syu31svc** 3 months ago

I would take B as the answer

<https://aws.amazon.com/about-aws/whats-new/2020/01/announcing-amazon-relational-database-service-snapshot-export-to-s3/>:
"You can now export Amazon Relational Database Service (Amazon RDS) or Amazon Aurora snapshots to Amazon S3"

https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/USER_ExportSnapshot.html:
"You can export manual snapshots and automated system snapshots"

Besides, backup retention of 90 days means data older than 90 days can be deleted right?

upvoted 1 times

 **Rikhav** 3 months, 1 week ago

B cant be right.... it talks about user defined S3 for automated backup...I dont think AWS allows u to define a user defined S3 bucket while taking backups.....Answer should be C, an AWS Backup plan

upvoted 1 times

Question #206

Topic 1

A company currently has 250 TB of backup files stored in Amazon S3 in a vendor's proprietary format. Using a Linux-based software application provided by the vendor, the company wants to retrieve files from Amazon S3, transform the files to an industry-standard format, and re-upload them to Amazon S3. The company wants to minimize the data transfer charges associated with this conversation.

What should a solutions architect do to accomplish this?

- A. Install the conversion software as an Amazon S3 batch operation so the data is transformed without leaving Amazon S3.
- B. Install the conversion software onto an on-premises virtual machine. Perform the transformation and re-upload the files to Amazon S3 from the virtual machine.
- C. Use AWS Snowball Edge devices to export the data and install the conversion software onto the devices. Perform the data transformation and re-upload the files to Amazon S3 from the Snowball Edge devices.
- D. Launch an Amazon EC2 instance in the same Region as Amazon S3 and install the conversion software onto the instance. Perform the transformation and re-upload the files to Amazon S3 from the EC2 instance.

Correct Answer: D

✉  **Neo12** Highly Voted 9 months, 3 weeks ago

Data is already in S3. Snowball is to transfer data from data center to AWS. Hence B & C are wrong. Lambda doesn't let you install custom software. So batch processing on S3 is not possible. As question asked to minimize the data transfer cost. D makes sense as you install EC2 in same region as S3

upvoted 65 times

✉  **Sallywhite** 6 months, 1 week ago

perfect explanation
upvoted 3 times

✉  **ThePunisher77** 7 months, 1 week ago

Perfect answer
upvoted 2 times

✉  **manoj101** Highly Voted 9 months, 4 weeks ago

D is correct as you need eC2 to run vendor provided software.
upvoted 17 times

✉  **kuman** 5 months, 3 weeks ago

Yes D is correct. There is no Data transfer cost between EC2 and S3 in the same region per <https://aws.amazon.com/ec2/pricing/on-demand/>
upvoted 5 times

✉  **Diomer9848** 1 month, 1 week ago

I think D its the correct answer.
The transfer data between ec2 and s3 not have cost if we have a S3 endpoint gateway, therefore, the transfer data will be across the internet (with cost)
upvoted 1 times

✉  **manoj101** 9 months, 3 weeks ago

There is no data transfer cost between eC2 & S3 with in same region.

<https://medium.com/@mulupuru/your-comprehensive-guide-to-understanding-aws-data-transfer-costs-f5c8241d65ed>
upvoted 10 times

✉  **Stpn2me** 9 months, 3 weeks ago

It's C:
<https://techcrunch.com/2018/07/17/with-its-snowball-edge-aws-now-lets-you-run-ec2-on-your-factory-floor/>
upvoted 3 times

✉  **zek** Most Recent 2 months, 1 week ago

Answer is A !
upvoted 1 times

✉  **ansh18061986** 2 months, 1 week ago

Correct answer is 'D' , There is no cost of data transfer if your EC2 and S3 is in same region . So , you can easily install the software on EC2 and perform the conversion and upload the data back to S3 without any transfer cost.
upvoted 1 times

✉  **Abdullah22** 2 months, 2 weeks ago

D. this was in my exam today . passed.

✉  **Irivera** 7 months, 1 week ago

Note that this is vendor software, you can't install any software on the snowball device, its part of their essence as it should be tamper proof.

upvoted 1 times

✉  **shuda** 4 months ago

this what i found tho:

With AWS OpsHub, you can use and manage AWS services on your Snow Family Devices. Currently, AWS OpsHub supports the following resources:

Amazon Elastic Compute Cloud (Amazon EC2) instances—Use Amazon EC2 instances to run software installed on a virtual server without sending it to the AWS Cloud for processing.

<https://docs.aws.amazon.com/snowball/latest/developer-guide/manage-services.html>

upvoted 1 times

✉  **Kanha_kashvi** 7 months, 1 week ago

I choose C with Snowball edge as snow ball pricing will include per device cost 500 USD+ Transfer cost of 0.03 USD/GB which will be total 9K USD(1500 USD for snow ball edge+7500 USD for data transfer), Now if you look at option D, You may need at least 18 EBS volumes attached to this EC2 (As one EBS volume can go upto 16TB) & Atleast 5 days would be needed only to transfer the data out from S3 & Transferring the data in to S3 (With Gateway endpoint with 10GBS speed thus APPROX 5 days for data transfer only+ time for data process) & if you check that in price calculator, EBS price itself is exceeding 9K USD

upvoted 1 times

Question #207

Topic 1

A company is migrating a NoSQL database cluster to Amazon EC2. The database automatically replicates data to maintain at least three copies of the data. I/O throughput of the servers is the highest priority. Which instance type should a solutions architect recommend for the migration?

- A. Storage optimized instances with instance store
 - B. Burstable general purpose instances with an Amazon Elastic Block Store (Amazon EBS) volume
 - C. Memory optimized instances with Amazon Elastic Block Store (Amazon EBS) optimization enabled
 - D. Compute optimized instances with Amazon Elastic Block Store (Amazon EBS) optimization enabled

Correct Answer: A

- alis29x** Highly Voted 9 months, 3 weeks ago
NO IDEA
upvoted 83 times

manoj101 Highly Voted 9 months, 4 weeks ago
A is correct though I am bit sceptical about Instance Store Volume but as we keeping 3 copies of data we always have options to recover from backup.
upvoted 22 times

CloudMania 2 months, 3 weeks ago
If "migrating" to AWS, do the copies of data remain functional?
For me, I will choose A only in the "hybrid" situation.
upvoted 1 times

kuman 5 months, 3 weeks ago
Answer is A. Because of 3 copies, instance store is ok and it has the best IOPS performance.
upvoted 3 times

GreatNews 9 months, 3 weeks ago
I agree with you. Storage optimized are for high I/O workloads. Despite it is an instance-store case, it says the data is replicated. I'll go with A.
upvoted 5 times

JGreen Most Recent 3 days, 20 hours ago
Passed exam this week and chose A
upvoted 1 times

DeepakRevankar 2 weeks, 4 days ago
A is the correct answer as per the documentation under storage optimized instances:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/storage-optimized-instances.html>
Storage optimized instances are well suited for the following:
Data-intensive workloads such as MapReduce and distributed file systems
Applications requiring sequential access to large amounts of data on direct-attached instance storage
Applications that require high-throughput access to large quantities of data
upvoted 1 times

hiblu888 3 weeks, 1 day ago
Lolololololololololol
upvoted 1 times

ismai1 4 weeks, 1 day ago
i can't understand why A, we can't store a database only on instance storage, no ?
upvoted 1 times

lovelyone 1 month, 3 weeks ago
Answer is A

An instance store provides temporary block-level storage for your instance. This storage is located on disks that are physically attached to the host computer. Instance store is ideal for temporary storage of information that changes frequently, such as buffers, caches, scratch data, and other temporary content, or for data that is replicated across a fleet of instances, such as a load-balanced pool of web servers
upvoted 2 times

jkwek 2 months, 1 week ago
A is the answer.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/storage-optimized-instances.html>
Storage optimized instances are designed for workloads that require high, sequential read and write access to very large data sets on local storage. They are optimized to deliver tens of thousands of low-latency, random I/O operations per second (IOPS) to applications.
upvoted 2 times

✉  **syu31svc** 3 months ago

I would take C

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/memory-optimized-instances.html>:

"These instances are well suited for the following:

High-performance, relational (MySQL) and NoSQL (MongoDB, Cassandra) databases."

upvoted 2 times

✉  **hiblu888** 3 weeks, 1 day ago

R u here to place order? Your answer is wrong budd.

upvoted 2 times

✉  **syu31svc** 2 months, 2 weeks ago

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/storage-optimized-instances.html>:

"Storage optimized instances are designed for workloads that require high, sequential read and write access to very large data sets on local storage. They are optimized to deliver tens of thousands of low-latency, random I/O operations per second (IOPS) to applications."

"These instances are well suited for the following:

High frequency online transaction processing (OLTP) systems

Relational databases

NoSQL databases"

Changing to A

upvoted 3 times

✉  **primanturin** 3 months ago

The right answer is A.

- Both Memory optimized instances (C) and Storage optimized instances (A) are use-cases for NoSQL databases.

- Both Memory optimized instances (C) and Storage optimized instances (A) provides good I/O, but Storage optimized provides the highest IOPS.

The key on the question is this:

A - "Storage optimized instances with instance store" = ephemeral storage. This would be a good reason to discard this answer, but the question highlights the fact that "The database automatically replicates data to maintain at least three copies of the data", so we are ok in this case.

That's why I believe the answer is A

upvoted 5 times

✉  **dmscounter** 3 months, 2 weeks ago

A for me

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Answer: (A) Storage optimized instances with instance store

upvoted 1 times

✉  **Ravishankar** 4 months ago

Amazon EC2 I3 instances are the next generation of Storage Optimized instances for high transaction, low latency workloads. I3 instances offer the best price per I/O performance for workloads such as NoSQL databases, in-memory databases, data warehousing, Elasticsearch, and analytics workloads.

Answer is A

upvoted 1 times

✉  **NSF** 4 months ago

Rationalising the fact that A is the correct answer.

General purpose - Good for mid size DB but wide variety of work loads.

Compute optimised - For HPC

Storage Optimised - For sequential r/w access and low latency, specially for random I/Os.

Also Instance store volumes provide, temporary and low latency storage.

upvoted 2 times

✉  **techcussion** 4 months, 2 weeks ago

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/memory-optimized-instances.html>

The high memory instances are designed to run large in-memory databases, including production deployments of the SAP HANA in-memory database, in the cloud. To maximize EBS performance, use high memory instances with an even number of io1 or io2 volumes with identical provisioned performance. For example, for IOPS heavy workloads, use four io1 or io2 volumes with 40,000 provisioned IOPS to get the maximum 160,000 instance IOPS. Similarly, for throughput heavy workloads, use six io1 or io2 volumes with 48,000 provisioned IOPS to get the maximum 4,750 MB/s throughput.

upvoted 1 times

✉  **techcussion** 4 months, 2 weeks ago

Hence C.

upvoted 2 times

✉  **vsmahesh** 5 months ago

C: Memory Optimized suited for High-performance, relational (MySQL) and NoSQL (MongoDB, Cassandra) databases.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/memory-optimized-instances.html>

upvoted 2 times

✉  **Hungdv** 6 months, 1 week ago

A does not suit for DB. I think C.

upvoted 2 times

✉  **Hungdv** 6 months ago

But db is replicated, so A should work

upvoted 2 times

Question #208

Topic 1

A company has a large Microsoft SharePoint deployment running on-premises that requires Microsoft Windows shared file storage. The company wants to migrate this workload to the AWS Cloud and is considering various storage options. The storage solution must be highly available and integrated with Active Directory for access control.

Which solution will satisfy these requirements?

- A. Configure Amazon EFS storage and set the Active Directory domain for authentication.
- B. Create an SMB file share on an AWS Storage Gateway file gateway in two Availability Zones.
- C. Create an Amazon S3 bucket and configure Microsoft Windows Server to mount it as a volume.
- D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication.

Correct Answer: D

Reference:

<https://aws.amazon.com/fsx/windows/>

✉  **manoj101** Highly Voted 9 months, 4 weeks ago

D is correct.

upvoted 21 times

✉  **rimi** Highly Voted 9 months, 2 weeks ago

Microsoft Windows shared file storage => FSx

D is correct.

upvoted 9 times

✉  **syu31svc** Most Recent 3 months, 2 weeks ago

Answer is D 100%

Key word is Windows

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication.

upvoted 2 times

✉  **myutran** 5 months ago

answer: D

upvoted 1 times

✉  **anpt** 6 months, 3 weeks ago

DDDDDDDDDDDDDDDDDDDDDDDDDD

upvoted 5 times

✉  **DarthYoda** 7 months, 2 weeks ago

D it is

upvoted 1 times

✉  **MFD0OM** 9 months ago

D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication.

upvoted 1 times

✉  **MaikM** 9 months ago

EFS is for Linux, FSx is for Windows, hence D.

upvoted 3 times

✉  **rocky2021** 9 months, 1 week ago

A company is deploying a multi-instance application within AWS that requires minimal latency between the instances.

What should a solutions architect recommend?

- A. Use an Auto Scaling group with a cluster placement group.
- B. Use an Auto Scaling group with single Availability Zone in the same AWS Region.
- C. Use an Auto Scaling group with multiple Availability Zones in the same AWS Region.
- D. Use a Network Load Balancer with multiple Amazon EC2 Dedicated Hosts as the targets

Answer B?

upvoted 1 times

✉  **Bbm2020** 6 months, 2 weeks ago

A. With cluster placement group you achieve minimal latency

.

upvoted 1 times

✉  **Tudu** 8 months ago

requires minimal latency so cluster placement group which is option A

upvoted 1 times

✉  **Kuruvi** 8 months, 3 weeks ago

Its A. Cluster placement group.

upvoted 1 times

✉  **Yecine11y** 1 day, 7 hours ago

It's not a Linux machine... Could not be EFS

upvoted 1 times

✉  **Damiur** 9 months ago

nope, it's A

upvoted 2 times

✉  **pkg82** 9 months, 2 weeks ago

Correct - Windows FS = FSx

upvoted 3 times

Question #209

Topic 1

A company has a web application with sporadic usage patterns. There is heavy usage at the beginning of each month, moderate usage at the start of each week, and unpredictable usage during the week. The application consists of a web server and a MySQL database server running inside the data center. The company would like to move the application to the AWS Cloud, and needs to select a cost-effective database platform that will not require database modifications.

Which solution will meet these requirements?

- A. Amazon DynamoDB
- B. Amazon RDS for MySQL
- C. MySQL-compatible Amazon Aurora Serverless
- D. MySQL deployed on Amazon EC2 in an Auto Scaling group

Correct Answer: B

 **GreatNews** Highly Voted 9 months, 3 weeks ago

For me it is C. From AWS Aurora Serverless: "It enables you to run your database in the cloud without managing any database instances. It's a simple, cost-effective option for infrequent, intermittent, or unpredictable workloads."
<https://aws.amazon.com/rds/aurora/serverless/>

The question clearly states that it is sporadic. Indeed, it is predictable because we do know when the traffic is low and when it increases. However, I think a serverless solution will better work for this kind of workload as it scales out and in only when it needs --> costs savings.

upvoted 24 times

 **GreatNews** 9 months, 3 weeks ago

It think the key is "intermittent", NOT unpredictable
 upvoted 1 times

 **NSF** Highly Voted 4 months, 2 weeks ago

The key words are ;
 Cost effective - Aurora cost is high.
 Unpredictable usage - Aurora is the best option
 However company's requirement is "needs to select a cost effective database" which implies that;
 B is the right answer
 upvoted 7 times

 **MDNowfal** Most Recent 2 weeks, 3 days ago

unpredictable usage so Should be: C
 upvoted 1 times

 **Meng_Hao** 3 weeks, 1 day ago

Can we focus with the MOST cost effective solution as said in the question. Comparatively RDS is cheaper than Aurora, but for unpredictable workloads Aurora is a given. Since they ask cost-effective solution I would go with B
 upvoted 2 times

 **ranajee** 1 month ago

"cost-effective database platform". Both RDS and Aurora Serverless are MySQL, but only RDS is cheaper than Aurora Serverless, and that's why I will pick RDS MySQL. Aurora can be 50% more expensive.
 upvoted 1 times

 **raghuisin** 1 month, 1 week ago

Its C:
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.html>
 upvoted 1 times

 **Toks2021** 1 month, 1 week ago

Key word here is "will not require database modification," so answer =B. This question is tricky
 upvoted 3 times

 **Akwex** 2 months ago

Please excuse my typing error: The correct answer is definitely C.
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.html#aurora-serverless.use-cases>
 upvoted 2 times

 **Akwex** 2 months ago

Answer is B
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.html#aurora-serverless.use-cases>
 upvoted 1 times

✉  **maigacribzz** 1 week ago

you meant C?
upvoted 1 times

✉  **jkwek** 2 months, 1 week ago

Answer is C.
<https://aws.amazon.com/rds/aurora/serverless/>

Amazon Aurora Serverless is an on-demand, auto-scaling configuration for Amazon Aurora. It automatically starts up, shuts down, and scales capacity up or down based on your application's needs. It enables you to run your database in the cloud without managing any database capacity.
upvoted 2 times

✉  **Kopa** 2 months, 3 weeks ago

C, Aura doesn't need db management.
upvoted 1 times

✉  **Abdullah777** 2 months, 4 weeks ago

unpredictable usage- C
upvoted 2 times

✉  **syu31svc** 3 months ago

Answer is C

<https://aws.amazon.com/rds/aurora/mysql-features/>:

"Amazon Aurora Serverless is an on-demand, auto-scaling configuration for Aurora where the database will automatically start-up, shut down, and scale up or down capacity based on your application's needs."

upvoted 2 times

✉  **rdr** 3 months, 1 week ago

Amazon Aurora
upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=C. MySQL-compatible Amazon Aurora Serverless
upvoted 1 times

✉  **myutran** 5 months ago

Answer :C
upvoted 2 times

✉  **AVINASH_AWS** 6 months, 1 week ago

Answer C
Amazon Aurora Serverless is an on-demand, autoscaling configuration for the MySQL-compatible and PostgreSQL-compatible editions of Amazon Aurora. An Aurora Serverless DB cluster automatically starts up, shuts down, and scales capacity up or down based on your application's needs. Aurora Serverless provides a relatively simple, cost-effective option for infrequent, intermittent, or unpredictable workloads. Read more in the Amazon Aurora User Guide.

upvoted 4 times

Question #210

Topic 1

A solutions architect is designing the storage architecture for a new web application used for storing and viewing engineering drawings. All application components will be deployed on the AWS infrastructure.

The application design must support caching to minimize the amount of time that users wait for the engineering drawings to load. The application must be able to store petabytes of data. Which combination of storage and caching should the solutions architect use?

- A. Amazon S3 with Amazon CloudFront
- B. Amazon S3 Glacier with Amazon ElastiCache
- C. Amazon Elastic Block Store (Amazon EBS) volumes with Amazon CloudFront
- D. AWS Storage Gateway with Amazon ElastiCache

Correct Answer: B

 **manoj101** Highly Voted 9 months, 4 weeks ago

A is correct
upvoted 36 times

 **Quitnotherethere123** Highly Voted 8 months, 2 weeks ago

It is A.

But seriously, whoever says it is B, just picking a letter and hoping to be right 25% of the times.
upvoted 21 times

 **Supreeth** Most Recent 1 week, 6 days ago

It has to be A. S3 and Cloudfront are like peanut butter and jelly. Not sure why the answers says B. The answers seriously need to be revisited by the moderator once.
upvoted 1 times

 **Liang** 2 weeks ago

S3 maximum capacity is only 5 terabytes.
upvoted 1 times

 **Manumj** 1 week, 2 days ago

THATS THE LIMITITATION FOR INDIVIDUAL FILE - ANSWER IS A
upvoted 2 times

 **reliquary** 2 weeks, 4 days ago

came up in my exam yesterday
i picked A
upvoted 3 times

 **madatt** 3 weeks, 2 days ago

Ans B offers contradictory solutions. Glacier - (long-term storage of infrequently accessed data, such as end-of-lifecycle, compliance, or regulatory backups) vs. ElastiCache (retrieve information from a fast, managed, in-memory system). Why use archival storage with elastiCache? Answer should be A
upvoted 1 times

 **sugarwall09** 3 weeks, 5 days ago

paraphrase "application must be able to store petabytes of data" --> Glacier
paraphrase "design must support caching to minimize the amount of time" --> ElastiCache
Together these lead to Answer (B).
upvoted 1 times

 **Iamrandom** 3 weeks, 4 days ago

NOOOOOOOO glacier is for archiving files, S3 is fine
upvoted 1 times

 **sugarwall09** 3 weeks, 5 days ago

paraphrase "application must be able to store petabytes of data" --> Glacier
paraphrase "design must support caching to minimize the amount of time" --> ElastiCache
Together these lead to Answer (B).
upvoted 1 times

 **ansh18061986** 2 months ago

Will go with option 'A'.
upvoted 2 times

✉  **jkwek** 2 months, 1 week ago

B is correct. The keywords are " combination of storage and caching" posed by question.

upvoted 2 times

✉  **TAvenger** 2 months ago

Really?

Did you try to read about CloudFront?

upvoted 3 times

✉  **jkwek** 2 months, 1 week ago

B is correct. <https://aws.amazon.com/elasticache/>

The keywords are "support caching to minimize the amount of time"

<https://docs.aws.amazon.com/amazonglacier/latest/dev/introduction.html>

Another set of keywords "able to store petabytes of data" which S3 is able to do so.

Amazon S3 Glacier is a secure, durable, and extremely low-cost Amazon S3 storage class for data archiving and long-term backup.

Amazon ElastiCache allows you to seamlessly set up, run, and scale popular open-source compatible in-memory data stores in the cloud. Build data-intensive apps or boost the performance of your existing databases by retrieving data from high throughput and low latency in-memory data stores. Amazon ElastiCache is a popular choice for real-time use cases like Caching, Session Stores, Gaming, Geospatial Services, Real-Time Analytics, and Queuing.

upvoted 1 times

✉  **lamrandom** 3 weeks, 4 days ago

It takes hours to retrieve a file from glacier.... not good for the requirements

upvoted 1 times

✉  **Meng_Hao** 3 weeks, 1 day ago

Well technically it takes 5mins to an hour or hours to retrieve a file, but since they emphasized on less loading time and Glacier does not provide consistent load time option A sounds about right.

upvoted 2 times

✉  **Elliea** 2 months, 2 weeks ago

The Answer is B

Key words "web application" (elasticache) and "petabytes" (S3 Glacier).

upvoted 1 times

✉  **lamrandom** 3 weeks, 4 days ago

Glacier is for archiving, not correct!

upvoted 1 times

✉  **Flass** 2 months, 3 weeks ago

How can the verified answer be B. ??? Clearly A.

upvoted 2 times

✉  **syu31svc** 3 months ago

100% is A

upvoted 3 times

✉  **Praps1** 3 months, 1 week ago

Can S3 store petabyte of data?

upvoted 1 times

✉  **EGD** 1 month, 3 weeks ago

Yes - "Amazon Simple Storage Service (S3) — Cloud Storage — AWS <https://aws.amazon.com/s3/faqs>

The total volume of data and number of objects you can store are unlimited.

upvoted 2 times

✉  **rdr** 3 months, 1 week ago

"The application design must support caching to minimize the amount of time that users wait for the engineering drawings to load" - can not be Glacier

A is the best fit

upvoted 3 times

✉  **Yogi** 3 months, 3 weeks ago

Ans= A. Amazon S3 with Amazon CloudFront

upvoted 1 times

Question #211

Topic 1

A solutions architect is creating an application that will handle batch processing of large amounts of data. The input data will be held in Amazon S3 and the output data will be stored in a different S3 bucket. For processing, the application will transfer the data over the network between multiple Amazon EC2 instances.

What should the solutions architect do to reduce the overall data transfer costs?

- A. Place all the EC2 instances in an Auto Scaling group.
- B. Place all the EC2 instances in the same AWS Region.
- C. Place all the EC2 instances in the same Availability Zone.
- D. Place all the EC2 instances in private subnets in multiple Availability Zones.

Correct Answer: B

 **Clouddudejacob** Highly Voted 9 months, 3 weeks ago

I think the answer might actually be C, because the transfer is between EC2 instances and not just between S3 and EC2.

"Also, be aware of inter-Availability Zones data transfer charges between Amazon EC2 instances, even within the same region. If possible, the instances in a development or test environment that need to communicate with each other should be co-located within the same Availability Zone to avoid data transfer charges. (This doesn't apply to production workloads which will most likely need to span multiple Availability Zones for high availability.)"

<https://aws.amazon.com/blogs/mt/using-aws-cost-explorer-to-analyze-data-transfer-costs/>

upvoted 62 times

 **AWSaspire** Highly Voted 9 months, 3 weeks ago

Ans : B

You pay for all bandwidth into and out of Amazon S3, except for the following:

- Data transferred in from the internet.
- Data transferred out to an Amazon Elastic Compute Cloud (Amazon EC2) instance, when the instance is in the same AWS Region as the S3 bucket.
- Data transferred out to Amazon CloudFront (CloudFront).

upvoted 28 times

 **robertomartinez** 1 month ago

Nope it's C :https://aws.amazon.com/ec2/pricing/on-demand/#Data_Transfer_within_the_same_AWS_Region

"Data transferred "in" to and "out" from Amazon EC2, Amazon RDS, Amazon Redshift, Amazon DynamoDB Accelerator (DAX), and Amazon ElastiCache instances, Elastic Network Interfaces or VPC Peering connections across Availability Zones in the same AWS Region is charged at \$0.01/GB in each direction."

upvoted 4 times

 **vamshidhara** Most Recent 1 week, 4 days ago

C

Data transfer between instances in same AZ is free

upvoted 1 times

 **tinyshare** 2 weeks ago

If B is right, C must be right.

Since you can choose only one, B is wrong, C is right

upvoted 2 times

 **Liang** 2 weeks ago

B is correct, not charges within the same region.

<https://aws.amazon.com/s3/pricing/>

upvoted 1 times

 **cameron04** 2 weeks, 3 days ago

Think it's B, because EC2 to S3 within same region is free.

Data transferred between Amazon S3, Amazon Glacier, Amazon DynamoDB, Amazon SES, Amazon SQS, Amazon Kinesis, Amazon ECR, Amazon SNS or Amazon SimpleDB and Amazon EC2 instances in the same AWS Region is free.

<https://aws.amazon.com/ec2/pricing/on-demand/>

C only applies to certain services and VPC peering.

upvoted 3 times

 **rutvijdasadia** 3 weeks, 1 day ago

It is telling about Batch Processing and it's better that instances are in same AZ

upvoted 1 times

 **DMR** 1 month, 2 weeks ago

Data transferred between EC2 instances or containers, or Elastic Network Interfaces in the same availability zone and same VPC over private IPv4 or IPv6 addresses are free.

<https://mulupuru.medium.com/your-comprehensive-guide-to-understanding-aws-data-transfer-costs-f5c8241d65ed>
upvoted 2 times

✉ **ranajee** 1 month, 3 weeks ago

The correct answer is "B" according to AWS

Source: <https://aws.amazon.com/ec2/pricing/on-demand/>

4th paragraph under heading "Data Transfer within the same AWS Region"

"Data transferred between Amazon S3, Amazon Glacier, Amazon DynamoDB, Amazon SES, Amazon SQS, Amazon Kinesis, Amazon ECR, Amazon SNS or Amazon SimpleDB and Amazon EC2 instances in the same AWS Region is free."

upvoted 3 times

✉ **Lolo_T** 1 month, 1 week ago

question is asking about data transfer between EC2 instances not S3. Correct Answer should be C.

upvoted 1 times

✉ **ismai1** 4 weeks, 1 day ago

B says EC2 instances in the same region, so it answer the question

upvoted 1 times

✉ **Twinkie** 2 weeks, 3 days ago

Regional data transfer is free when the transfer is between s3 and ec2. Here the question asks for ec2 to ec2, which is not free within the region across different az.

upvoted 1 times

✉ **borisrabin03** 2 months ago

its C

Data transfer between AWS services located in the same region but in different availability zones is considered as regional data transfer and is charged at \$ 0.01/GB (outgoing data transfer).

upvoted 2 times

✉ **TAvenger** 2 months ago

The answer is "C" (single AZ)

Application will transfer data between multiple EC2 instances.

From amazon docs:

Data transferred "in" to and "out" from Amazon EC2, Amazon RDS, Amazon Redshift , Amazon DynamoDB Accelerator (DAX), and Amazon ElastiCache instances or Elastic Network Interfaces across Availability Zones or VPC Peering connections in the same AWS Region is charged at \$0.01/GB in each direction.

Data transferred between Amazon EC2, Amazon RDS, Amazon Redshift, Amazon ElastiCache instances and Elastic Network Interfaces in the same Availability Zone is free. See above when transferring data using VPC peering.

So we need to place our EC2 instances in one AZ

upvoted 1 times

✉ **cryogenic007** 2 months ago

Guys, S3 is a distraction in this question...I agree with C

Look at this article that talks about data transfers between AZs which costs \$0.01/GB

<https://www.lastweekinaws.com/blog/aws-cross-az-data-transfer-costs-more-than-aws-says/>

upvoted 1 times

✉ **Akwex** 2 months ago

C is correct and will avoid inter-availability zone charges.

Open the link and scroll down to read th info: <https://aws.amazon.com/blogs/mt/using-aws-cost-explorer-to-analyze-data-transfer-costs/>
upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

B is correct.

<https://aws.amazon.com/ec2/pricing/on-demand/>:

refer to data transfer link:

"Data transferred between Amazon S3, Amazon Glacier, Amazon DynamoDB, Amazon SES, Amazon SQS, Amazon Kinesis, Amazon ECR, Amazon SNS or Amazon SimpleDB and Amazon EC2 instances in the same AWS Region is free"

upvoted 2 times

✉ **ranajee** 1 month, 3 weeks ago

Correct.

upvoted 1 times

✉ **Elliea** 2 months, 2 weeks ago

They want it in different regions to avoid failure of an availability zone.

upvoted 1 times

✉ **bubai01** 2 months, 2 weeks ago

D : Private Subnet means Private IP so no charge. C doesn't clearly say if they are using Public or Private , if using Public IP then even though same AZ will incur cost

upvoted 1 times

 **Abdullah777** 2 months, 4 weeks ago

the application will transfer the data over the network between multiple Amazon EC2 instances

EC2-EC2 - C

upvoted 2 times

Question #212

Topic 1

A company hosts its core network services, including directory services and DNS, in its on-premises data center. The data center is connected to the AWS Cloud using AWS Direct Connect (DX). Additional AWS accounts are planned that will require quick, cost-effective, and consistent access to these network services.

What should a solutions architect implement to meet these requirements with the LEAST amount of operational overhead?

- A. Create a DX connection in each new account. Route the network traffic to the on-premises servers.
- B. Configure VPC endpoints in the DX VPC for all required services. Route the network traffic to the on-premises servers.
- C. Create a VPN connection between each new account and the DX VPC. Route the network traffic to the on-premises servers.
- D. Configure AWS Transit Gateway between the accounts. Assign DX to the transit gateway and route network traffic to the on-premises servers.

Correct Answer: D

 **ndchris2003** Highly Voted 9 months, 2 weeks ago

The correct answer is D.

AWS Transit Gateway connects VPCs and on-premises networks through a central hub. This simplifies your network and puts an end to complex peering relationships. It acts as a cloud router – each new connection is only made once.

upvoted 20 times

 **manoj101** Highly Voted 9 months, 4 weeks ago

D is correct

upvoted 12 times

 **Ash1009** Most Recent 1 month, 3 weeks ago

correct answer is D

upvoted 2 times

 **jkwek** 2 months, 1 week ago

The answer is D.

<https://aws.amazon.com/transit-gateway/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

upvoted 2 times

 **syu31svc** 3 months ago

100% is D

Setting up new connections for each account will increase overhead so A and C are wrong

Configure VPC endpoints for all services also adds to overhead

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans=D. Configure AWS Transit Gateway between the accounts. Assigns DX to the transit gateway and route network traffic to the on-premises servers.

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

D. hands down

upvoted 1 times

 **Ritz40** 5 months, 3 weeks ago

I opt "D"

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

DDDDDDDDDDDDDDDDDDDDDDDDDD

upvoted 4 times

 **acymlf** 7 months, 3 weeks ago

D it is.

upvoted 2 times

 **weril** 7 months, 4 weeks ago

Transit Gateway

upvoted 2 times

 **rselas** 8 months ago

A is not cost-effective. D is the correct answer

upvoted 1 times

 **JeanCGP** 8 months, 2 weeks ago

Ans is D. Due to this "Additional AWS accountssssssssssssss are planned"

upvoted 1 times

 **MFDOOM** 9 months ago

D. Configure AWS Transit Gateway between the accounts. Assigns DX to the transit gateway and route network traffic to the on-premises servers.

upvoted 2 times

 **AWS1212** 9 months, 2 weeks ago

Definitely D

upvoted 1 times

 **SridharanB** 9 months, 2 weeks ago

D is the answer

upvoted 1 times

 **kod** 9 months, 3 weeks ago

I go to D, All DX will point to Transit Gateway ; All VPC with associated account will be connected to Transit Gateway

upvoted 9 times

Question #213

Topic 1

A company operates an ecommerce website on Amazon EC2 instances behind an Application Load Balancer (ALB) in an Auto Scaling group. The site is experiencing performance issues related to a high request rate from illegitimate external systems with changing IP addresses. The security team is worried about potential DDoS attacks against the website. The company must block the illegitimate incoming requests in a way that has a minimal impact on legitimate users.

What should a solutions architect recommend?

- A. Deploy Amazon Inspector and associate it with the ALB.
- B. Deploy AWS WAF, associate it with the ALB, and configure a rate-limiting rule.
- C. Deploy rules to the network ACLs associated with the ALB to block the incoming traffic.
- D. Deploy Amazon GuardDuty and enable rate-limiting protection when configuring GuardDuty.

Correct Answer: B

Reference:

<https://aws.amazon.com/blogs/aws/protect-web-sites-services-using-rate-based-rules-for-aws-waf/>

✉  **mikmik** Highly Voted 8 months, 3 weeks ago

B.

Passed exam today (Oct-3-2020). This question appeared on my exam. I'm marking this to help out future exam takers.
upvoted 54 times

✉  **superduperrico** 5 months, 2 weeks ago

thank you for your information. I am preparing myself for the exam AWS SAA CO2 this month.
upvoted 2 times

✉  **Fedzo** Highly Voted 7 months, 3 weeks ago

- Changing IP addr, cannot be NACL
- AWS Inspector assesses applications for exposure, vulnerabilities, and deviations from best practices, so it's for penetration tests and so on
- AWS GuardDuty, threat detection not prevention
- AWS WAF is the best option

upvoted 10 times

✉  **quesobamac** Most Recent 1 week, 2 days ago

B is correct
upvoted 1 times

✉  **MDNowfal** 2 weeks, 3 days ago

200% its B
upvoted 2 times

✉  **jkwek** 2 months, 1 week ago

Answer is B.
New Rate-Based Rules
Today we are adding Rate-based Rules to WAF, giving you control of when IP addresses are added to and removed from a blacklist, along with the flexibility to handle exceptions and special cases:
upvoted 1 times

✉  **syu31svc** 3 months ago

Answer is B

<https://aws.amazon.com/blogs/aws/protect-web-sites-services-using-rate-based-rules-for-aws-waf/>
upvoted 3 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=B. Deploy AWS WAF, associate it with the ALB, and configure a rate-limiting rule.
upvoted 2 times

✉  **CCNPWILL** 4 months, 3 weeks ago

Answer is B. DDoS works by sending high amounts of SYN packets to the IP node. Limiting it to a few requests will keep more connections available. networking question.
upvoted 4 times

✉  **dave0808** 3 months, 4 weeks ago

Perfect
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBBBB

upvoted 5 times

 **anilgc** 8 months, 3 weeks ago

Its B. AWS shield is best for DDos attacks but WAF is best among the options given.

upvoted 5 times

 **Kuruvi** 9 months, 1 week ago

Ans B. You can block range of IPs.

upvoted 2 times

 **rocky2021** 9 months, 1 week ago

A company is moving its legacy workload to the AWS Cloud. The workload files will be shared, appended, and frequently accessed through Amazon EC2 instances when they are first created. The files will be accessed occasionally as they age. What should a solutions architect recommend?

- A. Store the data using Amazon EC2 instances with attached Amazon Elastic Block Store (Amazon EBS) data volumes
- B. Store the data using AWS Storage Gateway volume gateway and export rarely accessed data to Amazon S3 storage
- C. Store the data using Amazon Elastic File System (Amazon EFS) with lifecycle management enabled for rarely accessed data
- D. Store the data using Amazon S3 with an S3 lifecycle policy enabled to move data to S3 Standard-Infrequent Access (S3 Standard-IA)

Answer should C?

upvoted 3 times

 **AWSNoobie97** 8 months, 2 weeks ago

C is correct. Unlike S3 lifecycle that moves data to cheaper storage based on number of days that file is there in S3, EFS lifecycle moves based on number of days that file is lying idle

upvoted 3 times

 **Amitv2706** 8 months, 3 weeks ago

Yes C as files are shared. If files were replicated the EBS volumes comes in picture.

Request to ask questions at right place as this discussion is for a different question.

upvoted 1 times

 **AMohanty** 8 months, 4 weeks ago

Correct should be C

upvoted 1 times

 **CCNPWILL** 4 months, 3 weeks ago

Wrong. B.

upvoted 2 times

 **VegasDegenerate** 9 months, 3 weeks ago

yup B, cant be C because of changing ips

upvoted 2 times

 **tfe** 9 months, 3 weeks ago

Answ B

upvoted 7 times

 **Gordiii** 9 months, 3 weeks ago

B - Big data processing framework and Business intelligence

upvoted 1 times

Question #214

Topic 1

A company receives structured and semi-structured data from various sources once every day. A solutions architect needs to design a solution that leverages big data processing frameworks. The data should be accessible using SQL queries and business intelligence tools. What should the solutions architect recommend to build the MOST high-performing solution?

- A. Use AWS Glue to process data and Amazon S3 to store data.
- B. Use Amazon EMR to process data and Amazon Redshift to store data.
- C. Use Amazon EC2 to process data and Amazon Elastic Block Store (Amazon EBS) to store data.
- D. Use Amazon Kinesis Data Analytics to process data and Amazon Elastic File System (Amazon EFS) to store data.

Correct Answer: B

Reference:

<https://aws.amazon.com/redshift/features/>

 **Prabudas** Highly Voted 9 months, 3 weeks ago

B - Big data - EMR
upvoted 13 times

 **srthsrt** Highly Voted 9 months, 4 weeks ago

B looks ok
upvoted 10 times

 **syu31svc** Most Recent 3 months ago

"SQL queries and business intelligence" -> Redshift is to be used

Answer is B
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Use Amazon EMR to process data and Amazon Redshift to store data.
upvoted 1 times

 **AwsNewPeople** 3 months, 3 weeks ago

B for sure.

Big Data Analysis platform - Amazon EMR is the industry-leading cloud big data platform for processing vast amounts of data using open source tools such as Apache Spark, Apache Hive, Apache HBase.

Storage that enable SQL queries & can directly connect to BI tools - Redshift
upvoted 4 times

 **Edgecrusher77** 5 months, 1 week ago

B is the best choice for performance, but expensive.
A is a cheaper alternative
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBB
upvoted 6 times

 **Nantu** 6 months, 4 weeks ago

B is correct, as it is mentioned Big Data
upvoted 1 times

 **jy00271070** 7 months, 3 weeks ago

Why nobody select A?
upvoted 2 times

Data should be accessed using SQL. Typical datawarehousing pattern. S3 can't handle SQL (unless you leverage something like Amazon Athena)
upvoted 2 times

 **ThePunisher77** 7 months, 1 week ago

The question states that the solution should leverage any big data framework.
Glue is serverless.

EMR is more flexible as it manages a fleet of ec2 instances, you can install whatever big data framework you want (Hadoop for instance)

upvoted 4 times

 **touryard** 8 months, 2 weeks ago

B is fine. Can someone say why not D?

upvoted 1 times

 **Medi_19** 8 months, 1 week ago

Because there is in the question Big data so EMR will be the perfect service tp process big data .

upvoted 2 times

 **Medi_19** 8 months, 1 week ago

And for data warehousing or BI, Redshift is the perfect service to store data in this case

upvoted 7 times

 **anilgc** 8 months, 3 weeks ago

B, Big data EMR, Redshift for analyzing

upvoted 1 times

 **MFDOOM** 9 months ago

B. Use Amazon EMR to process data and Amazon Redshift to store data.

upvoted 1 times

 **manoj101** 9 months, 3 weeks ago

B is correct for highest performance.

upvoted 3 times

 **kjfun2007** 9 months, 3 weeks ago

Hi,

Can you please let me know where I can find all the questions at 1 place.

Thank you.

upvoted 1 times

 **tfe** 9 months, 3 weeks ago

"big data processing frameworks" -> EMR . Answ B.

upvoted 3 times

 **Gordiii** 9 months, 3 weeks ago

D - "consistent access to these network services"

upvoted 1 times

 **MikeHugeNerd** 9 months, 3 weeks ago

Tricky as Kinesis is also required to receive data from various sources.

upvoted 2 times

 **DarthYoda** 7 months, 2 weeks ago

sure but EFS cannot ensure that "The data should be accessible using SQL queries and business intelligence tools."

so B is the answer

upvoted 2 times

Question #215

Topic 1

A company is hosting an election reporting website on AWS for users around the world. The website uses Amazon EC2 instances for the web and application tiers in an Auto Scaling group with Application Load Balancers. The database tier uses an Amazon RDS for MySQL database. The website is updated with election results once an hour and has historically observed hundreds of users accessing the reports.

The company is expecting a significant increase in demand because of upcoming elections in different countries. A solutions architect must improve the website's ability to handle additional demand while minimizing the need for additional EC2 instances.

Which solution will meet these requirements?

- A. Launch an Amazon ElastiCache cluster to cache common database queries.
- B. Launch an Amazon CloudFront web distribution to cache commonly requested website content.
- C. Enable disk-based caching on the EC2 instances to cache commonly requested website content.
- D. Deploy a reverse proxy into the design using an EC2 instance with caching enabled for commonly requested website content.

Correct Answer: B

 **MikeHugeNerd** Highly Voted 9 months, 3 weeks ago

B. looks good. The keyword is 'users around the world' = Cloudfront
upvoted 19 times

 **anpt** Highly Voted 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
upvoted 5 times

 **syu31svc** Most Recent 3 months ago

100% is B
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Launch an Amazon CloudFront web distribution to cache commonly requested website content.
upvoted 1 times

 **hp298** 7 months, 3 weeks ago

Results updated every hour. Maybe Elasticache?
upvoted 2 times

 **luchotluchot** 7 months, 1 week ago

No because Elasticache it is between EC2 and RDS => so if the demand is huge you will need additional EC2 instances whereas with Cloud Front the request do not go to your EC2 instance.
upvoted 5 times

 **phaniawst** 7 months, 3 weeks ago

B- Hundreds of users accessing the same reports, CloudFront is better.
upvoted 1 times

 anilgc 8 months, 3 weeks ago

B 100%
upvoted 1 times

 Kuruvィ 8 months, 3 weeks ago

B is correct.
upvoted 2 times

 Rahul74427 9 months, 2 weeks ago

B looks good
upvoted 1 times

 Gordii 9 months, 3 weeks ago

B - CloudFront is a web service that speeds up distribution of your static and dynamic web content. CloudFront content delivery network (CDN) is massively scaled and globally distributed.
upvoted 5 times

Question #216

Topic 1

A company is building a website that relies on reading and writing to an Amazon DynamoDB database. The traffic associated with the website predictably peaks during business hours on weekdays and declines overnight and during weekends. A solutions architect needs to design a cost-effective solution that can handle the load.

What should the solutions architect do to meet these requirements?

- A. Enable DynamoDB Accelerator (DAX) to cache the data.
- B. Enable Multi-AZ replication for the DynamoDB database.
- C. Enable DynamoDB auto scaling when creating the tables.
- D. Enable DynamoDB On-Demand capacity allocation when creating the tables.

Correct Answer: C

✉  **amxexam** Highly Voted 7 months, 2 weeks ago

A - DAX is a cache for read-intensive application, here the application is a read/write.
 B - multi az replication will increase the HA, but will not help in variable predictable load throughout the day.
 C - Autoscaling is the answer as per the documentation when the morning peak load is different from the load during the regular hour.
<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/AutoScaling.html>
 D - On Demand is for unpredictable workload, but here the workload is predictable. But still will work.
<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.ReadWriteCapacityMode.html>

But as per the documentation we should go with C.

upvoted 28 times

✉  **lunamycat** Highly Voted 7 months, 3 weeks ago

Answer C.
 Enable DynamoDB auto scaling when creating the tables.

Traffic is predictable according to the scenario cost effective to enable autoscaling on tables.

'DynamoDB auto scaling reduces the unused capacity in the area between the provisioned and consumed capacity. Improved ratio of consumed to provisioned capacity, which reduces the wasted overhead while providing sufficient operating capacity.'

With on-demand, DynamoDB instantly allocates capacity as it is needed. There is no concept of provisioned capacity, and there is no delay waiting for CloudWatch thresholds or the subsequent table updates. On-demand is ideal for bursty, new, or unpredictable workloads whose traffic can spike in seconds or minutes, and when underprovisioned capacity would impact the user experience.'

upvoted 14 times

✉  **noahsark** 2 months, 3 weeks ago

C is correct:

DynamoDB modes:

On-demand – unknown workloads
 Provisioned – predictable application traffic
<https://aws.amazon.com/dynamodb/pricing/>
 Provisioned capacity has Auto Scaling. You can check in free tier AWS Console ->
 Create DynamoDB table -> Read/write capacity mode -> Provisioned capacity -> Auto Scaling.

upvoted 1 times

✉  **nwk** Most Recent 3 days, 18 hours ago

C
<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/AutoScaling.html>

upvoted 1 times

✉  **Elliea** 1 week, 4 days ago

Isn't autoscaling automatically enabled in dynamo db?
 upvoted 1 times

✉  **Samm757** 1 month, 3 weeks ago

With DynamoDB Auto scaling, DynamoDB can automatically increase its write capacity for the spike and decrease the throughput after the spike.
 upvoted 1 times

✉  **syu31svc** 3 months ago

C is the answer

A is wrong as DAX is meant for caching
 B is wrong as Multi AZ replication would incur costs for sure; not cost effective
 D is wrong since C is definitely more cost effective

upvoted 2 times

 **waqas** 3 months, 1 week ago

We will go for C because D is not right here as Traffic is predictable, not unpredictable....thats y.

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=C. Enable DynamoDB auto scaling when creating the tables.

upvoted 2 times

 **Yogi** 3 months, 2 weeks ago

Correction, use DAX whenever DynamoDb is involved. DAX is Dynamo's cure for caching.

upvoted 1 times

 **NSF** 4 months ago

Here there is a tie between C and D, however the actual tie breaker, in my opinion is "Cost effective" key words. Autoscaling can set an upper limit where on -demand has no upper limit.

So I would go for C

upvoted 1 times

 **burner_1984** 4 months, 1 week ago

And is C,

D: On-Demand capacity - is 2.5 times more expensive and questions asks it to be cost effective

upvoted 1 times

 **argol** 5 months, 3 weeks ago

The choice between DynamoDB on-demand vs.DynamoDB auto scaling ... On-demand is good for small applications or for large applications with steep and unpredictable spikes that DynamoDB Auto Scaling cannot react to fast enough. For most other applications, provisioned capacity is likely a better option when factoring in cost.

answer is "C"

upvoted 3 times

 **mraz** 5 months, 3 weeks ago

D is correct

Amazon DynamoDB on-demand is a flexible billing option capable of serving thousands of requests per second without capacity planning. DynamoDB on-demand offers pay-per-request pricing for read and write requests so that you pay only for what you use.

When you choose on-demand mode, DynamoDB instantly accommodates your workloads as they ramp up or down to any previously reached traffic level. If a workload's traffic level hits a new peak, DynamoDB adapts rapidly to accommodate the workload. Tables that use on-demand mode deliver the same single-digit millisecond latency, service-level agreement (SLA) commitment, and security that DynamoDB already offers. You can choose on-demand for both new and existing tables and you can continue using the existing DynamoDB APIs without changing code.

On-demand mode is a good option if any of the following are true:

You create new tables with unknown workloads.

You have unpredictable application traffic.

You prefer the ease of paying for only what you use.

upvoted 1 times

 **lamrandom** 3 weeks, 3 days ago

Here is predictable so C is correct as it is more cost effective

upvoted 1 times

 **fidaforever** 5 months, 3 weeks ago

My take- C, as it Variable & Predictable.

If you have steady, predictable traffic, choose reserved capacity. Since you know you need a certain amount of capacity at all times, you can save from reduced rates.

If you have variable, predictable traffic, choose provisioned capacity. Imagine you have significant traffic during the day but no traffic overnight. Reserved capacity would be wasted overnight, but your patterns are predictable enough that you could scale up your provisioned capacity when you need it.

If you have variable, unpredictable traffic, choose on-demand. If your application gets random spikes, it can be hard to provision capacity to match demand. Use the on-demand feature so you don't throttle your users.

upvoted 1 times

 **KALRAV** 6 months, 3 weeks ago

C for sure - <https://www.serverless.com/blog/dynamodb-on-demand-serverless>

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

CCCCCCCCCCCCCCCC

upvoted 4 times

 **saksinha** 7 months ago

Answer is C

upvoted 1 times

 **aguy9** 7 months ago

Answer is C. The below link provides a cost comparison of DynamoDB on-demand vs auto scaling. Auto scaling is cheaper when it comes to predictable fluctuations. On demand is used when capacity planning is hard Or when there are no-ops benefits to the company.

<https://aws.amazon.com/blogs/database/amazon-dynamodb-auto-scaling-performance-and-cost-optimization-at-any-scale/>

upvoted 3 times

Question #217

Topic 1

A company uses Amazon Redshift for its data warehouse. The company wants to ensure high durability for its data in case of any component failure.

What should a solutions architect recommend?

- A. Enable concurrency scaling.
- B. Enable cross-Region snapshots.
- C. Increase the data retention period.
- D. Deploy Amazon Redshift in Multi-AZ.

Correct Answer: B

 **lunamycat** Highly Voted  7 months, 3 weeks ago

Ans B, enable cross region snapshots. That will improve durability. Multi-AZ is not supported with RedShift.

<https://aws.amazon.com/about-aws/whats-new/2019/10/amazon-redshift-improves-performance-of-inter-region-snapshot-transfers/>

Performance enhancements have been made that allow Amazon Redshift to copy snapshots across regions much faster, allowing customers to support much more aggressive Recovery Time Objective (RTO) and Recovery Point Objective (RPO) Disaster Recovery (DR) policies

upvoted 23 times

 **noahsark** 3 months, 4 weeks ago

agree with B:

<https://aws.amazon.com/blogs/big-data/building-multi-az-or-multi-region-amazon-redshift-clusters/>

upvoted 1 times

 **AWSCert2021** 5 months, 3 weeks ago

Agreed with B. Cross-region snapshots can also be enabled, which will copy incremental changes to a secondary/DR region, allowing for a Redshift cluster to be recovered in another region. Depending upon the snapshot policy configured on the primary cluster, the snapshot updates can either be scheduled, or based upon data change, and then any updates automatically replicated to the secondary/DR region automatically.

upvoted 4 times

 **SlimeMould** Highly Voted  7 months, 3 weeks ago

I guess the answer is: B - <https://aws.amazon.com/blogs/aws/automated-cross-region-snapshot-copy-for-amazon-redshift/>

A - NO - because it's about performance

C - NO - there is no option to do this

D - NO - cause each cluster is independent

upvoted 7 times

 **Toks2021** Most Recent  1 month, 1 week ago

B is answer.

Not D because "Amazon Redshift only supports single AZ deployment

"<https://aws.amazon.com/redshift/faqs/>

upvoted 1 times

 **syu31svc** 3 months ago

"high durability" -> cross-region fits the bill

B it is

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Answer: B. Enable cross-Region snapshots.

<https://aws.amazon.com/about-aws/whats-new/2019/10/amazon-redshift-improves-performance-of-inter-region-snapshot-transfers/>

upvoted 1 times

 **NSF** 4 months ago

As per below, it has to be D

<https://aws.amazon.com/blogs/big-data/building-multi-az-or-multi-region-amazon-redshift-clusters/>

"By default, Amazon Redshift has excellent tools to back up your cluster via snapshot to Amazon Simple Storage Service (Amazon S3). These snapshots can be restored in any AZ in that region or transferred automatically to other regions for disaster recovery."

However sometime, a requirement may arise to deploy Redshift cluster Multi AZ. "

upvoted 1 times

 **noahsark** 3 months, 4 weeks ago

D may be wrong:

Q: Does Amazon Redshift support Multi-AZ Deployments?

Currently, Amazon Redshift only supports Single-AZ deployments. You can run data warehouse clusters in multiple AZ's by loading data into two Amazon Redshift data warehouse clusters in separate AZs from the same set of Amazon S3 input files. With Redshift Spectrum, you can spin up multiple clusters across AZs and access data in Amazon S3 without having to load it into your cluster. In addition, you can also restore a data warehouse cluster to a different AZ from your data warehouse cluster snapshots.

<https://aws.amazon.com/redshift/faqs/>

upvoted 1 times

✉ **NSF** 4 months, 2 weeks ago

Here;

Concurrently scaling means making available virtually unlimited user queries which will boost performance.

Cross region replication snapshot will ensure backup which can be used in a component failure

There are snapshots retention but not data retention

Redshift can't be deployed multi AZ however below, you have to enable relocation and you can run two clusters 2 AZs

Q: What happens to my data warehouse cluster availability and data durability if my data warehouse cluster's Availability Zone (AZ) has an outage?

If your Amazon Redshift data warehouse cluster's Availability Zone becomes unavailable, Amazon Redshift will automatically move your cluster to another AWS Availability Zone (AZ) without any data loss or application changes. To activate this, you must enable the relocation capability in your cluster configuration settings.

<https://aws.amazon.com/redshift/faqs/>

upvoted 3 times

✉ **EarlBrillantes061816** 4 months, 3 weeks ago

Amazon Redshift will automatically detect and replace a failed node in your data warehouse cluster. The data warehouse cluster will be unavailable for queries and updates until a replacement node is provisioned and added to the DB. Amazon Redshift makes your replacement node available immediately and loads your most frequently accessed data from S3 first to allow you to resume querying your data as quickly as possible. Single node clusters do not support data replication. In the event of a drive failure, you will need to restore the cluster from snapshot on S3. We recommend using at least two nodes for production

It seems answer is B. Drive is a component

upvoted 1 times

✉ **ValiantV** 5 months, 4 weeks ago

C -

Data Durability: Amazon Redshift replicates your data within your data warehouse cluster and continuously backs up your data to Amazon S3, which is designed for eleven nines of durability. Amazon Redshift mirrors each drive's data to other nodes within your cluster. If a drive fails, your queries will continue with a slight latency increase while Redshift rebuilds your drive from replicas. In case of node failure(s), Amazon Redshift automatically provisions new node(s) and begins restoring data from other drives within the cluster or from Amazon S3. It prioritizes restoring your most frequently queried data so your most frequently executed queries will become performant quickly.

upvoted 1 times

✉ **kuman** 5 months, 3 weeks ago

What are you talking about.... where does it say retention here??

upvoted 1 times

✉ **gobbara** 6 months, 1 week ago

Amazon Redshift automatically patches and backs up your data warehouse, storing the backups for a user-defined retention period. Amazon Redshift uses replication and continuous backups to enhance availability and improve data durability and can automatically recover from component and node failures.

It is C; <https://aws.amazon.com/redshift/faqs/>

upvoted 3 times

✉ **BSKumar004** 4 months, 3 weeks ago

C is correct. Increase the user-defined retention period. (which is nothing but "C. Increase the data retention period.")

upvoted 1 times

✉ **BSKumar004** 4 months, 3 weeks ago

Source: <https://aws.amazon.com/redshift/faqs/>

upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBB

upvoted 2 times

✉ **hved** 7 months, 1 week ago

Ans is B

upvoted 1 times

✉ **etu2022** 7 months, 2 weeks ago

B is Asn

Availability refers to system uptime, i.e. the storage system is operational and can deliver data upon request. ... Durability, on the other hand, refers to long-term data protection, i.e. the stored data does not suffer from bit rot, degradation or other corruption.

D is about availability

upvoted 4 times

✉️ **Sparks026** 7 months, 1 week ago

Yes the correct answer is B because Redshift does not support Multi-AZ since the clusters are independent, hence, option D is not even applicable.

upvoted 4 times

✉️ **Quitnotherethere123** 7 months, 2 weeks ago

Answer: B

upvoted 2 times

✉️ **DarthYoda** 7 months, 2 weeks ago

Answer is B, you need to enable cross region snapshots and recover from them if you lose your nodes

<https://aws.amazon.com/redshift/faqs/>

upvoted 3 times

✉️ **lunamycat** 7 months, 3 weeks ago

You can configure Amazon Redshift to copy snapshots for a cluster to another region. To configure cross-region snapshot copy, you need to enable this copy feature for each cluster and configure where to copy snapshots and how long to keep copied automated snapshots in the destination region. When cross-region copy is enabled for a cluster, all new manual and automatic snapshots are copied to the specified region.

upvoted 2 times

Question #218

Topic 1

A company has data stored in an on-premises data center that is used by several on-premises applications. The company wants to maintain its existing application environment and be able to use AWS services for data analytics and future visualizations.
Which storage service should a solutions architect recommend?

- A. Amazon Redshift
- B. AWS Storage Gateway for files
- C. Amazon Elastic Block Store (Amazon EBS)
- D. Amazon Elastic File System (Amazon EFS)

Correct Answer: B

 **DarthYoda** Highly Voted  7 months, 2 weeks ago

B

use case for file gateway: "Hybrid cloud workflows using data generated by on-premises applications for processing by AWS services such as machine learning, big data analytics or serverless functions."

upvoted 28 times

 **crazyaboutazure** 2 weeks, 2 days ago

Should be A as Amazon Redshift managed storage uses large, high-performance SSDs in each RA3 node for fast local storage and Amazon S3 for longer-term durable storage. If the data in a node grows beyond the size of the large local SSDs, Amazon Redshift managed storage automatically offloads that data to Amazon S3. So AWS Redshift is managed storage for OLAP.

upvoted 1 times

 **mahdeo01** 2 weeks ago

* PLEASE READ LAST SENTENCE AGAIN THAT SAYS " Which storage service should...." YOU USE. --- and RedShift is not a Storage Service!!!!!! (It's an Analytics DB Platform)

upvoted 2 times

 **crazyaboutazure** 2 weeks, 2 days ago

The only way answer is B when " company wants to maintain its existing application environment" means they want the same in AWS as in that case file gateway storage can be used which can move it to S3 and from there can be copied to Redshift for Analytics etc.

upvoted 1 times

 **crazyaboutazure** 2 weeks, 2 days ago

More - The fourth stage is data analytics and visualization. The real value of data can be extracted in this stage. Decision-makers use analytics and visualization tools to predict customer needs, improve operations, transform broken processes, and innovate to compete. The ability for mission owners and executives to rely on data reduces error-prone and costly guesswork. AWS services available in this stage include Amazon Athena, Amazon Redshift, Amazon QuickSight, Amazon SageMaker, Amazon Comprehend, Amazon Comprehend Medical, and AWS DeepLens.

https://pages.awscloud.com/rs/112-TZM-766/images/Data_Lifecycle_and_Analytics_Reference_Guide.pdf

This tells that Storage Gateway is ingest service not analytics or visualisation service

upvoted 1 times

 **Sparks026** Highly Voted  7 months, 1 week ago

The answer is clearly option A - Redshift.

Explanation:

The company wants to maintain its existing application environment => meaning they are not planning to migrate to AWS cloud.

and be able to use AWS services for data analytics and future visualizations => they are interested in an AWS service that will offer the above.

Question: Which storage service should a solutions architect recommend? => here they are asking for the service.

upvoted 10 times

 **GogoRomX** 5 months, 3 weeks ago

Amazon Redshift is not a Storage Service and it should be the first to be out

upvoted 9 times

 **noahsark** 2 months, 1 week ago

in AWS Console, Redshift is under Analytics.

Storage services are:

S3

EFS
FSx
S3 Glacier
Storage Gateway
AWS Backup
upvoted 1 times

□ **Kian1** 6 months ago

agree so it is A
upvoted 2 times

□ **vamshidhara** [Most Recent] 1 week, 4 days ago

A
Covers both analytics and Storage
<https://docs.aws.amazon.com/redshift/latest/mgmt/working-with-clusters.html#rs-about-clusters-and-nodes>
Amazon Redshift managed storage uses large, high-performance SSDs in each RA3 node for fast local storage and Amazon S3 for longer-term durable storage. If the data in a node grows beyond the size of the large local SSDs, Amazon Redshift managed storage automatically offloads that data to Amazon S3
upvoted 1 times

□ **jkwek** 2 months, 1 week ago

Answer is B.
keyword are "AWS services for data analytics and future visualizations"
<https://aws.amazon.com/blogs/awsmarketplace/data-visualization-in-aws-using-aws-data-exchange-and-amazon-quicksight/>
For your data visualization, you need the following AWS services and prerequisites.

Amazon Simple Storage Service (Amazon S3) object store to store the data source
AWS Glue to crawl the dataset and prepare metadata without loading them into any database. This reduces the cost of running an expensive database. Instead, you can store and run visuals from raw data files stored in an Amazon S3 bucket.
Amazon Athena to query the Amazon QuickSight dataset for manual data analysis
Amazon QuickSight to help your stakeholders identify key drivers for their business
upvoted 1 times

□ **waqas** 2 months, 3 weeks ago

Basically they are asking for the service and that is "REDSHIFT" which performs these functions like Data Analytics and Future Visualizations. so A is right for me.
upvoted 1 times

□ **waqas** 2 months, 3 weeks ago

Furthermore, Redshift is although dataware house but don't forget it has columnar storage.
upvoted 1 times

□ **Abdullah777** 2 months, 4 weeks ago

The company wants to maintain its existing application environment and be able to use AWS services for data analytics and future visualizations.
"be able to use AWS services" they want a way that make them able to use the aws services. B
upvoted 3 times

□ **syu31svc** 3 months ago

The catch to the qn is "maintain its existing application environment"

So answer is B
upvoted 2 times

□ **Yogi** 3 months, 3 weeks ago

Answer=A. Amazon Redshift
upvoted 1 times

□ **AwsNewPeople** 3 months, 3 weeks ago

The company wants to maintain its existing application environment and be able to use AWS services for data analytics and future visualizations
We need to keep the current environment as a requirement, so B is correct. If the above statement is not exist, then we can change the storage service to Redshift.
upvoted 2 times

□ **sunny2608** 4 months, 2 weeks ago

B as the files then can be used with other aws services for analytics
upvoted 3 times

□ **VincentZhang** 4 months, 1 week ago

correct, the question here is how to use the aws services to access the data on premise. Only Storage Gateway can make it happen! Ans is B
upvoted 2 times

□ **Bbm2020** 6 months, 2 weeks ago

Ans BBBB
File Gateway is a great choice for various hybrid cloud workloads. For example if your company does a lot of big data analytics, but relies on both on-premise and the AWS cloud, File Gateway makes it easy for you to move the data to S3 and ingest it to something like EMR or Athena.

The resulting data can be stored in S3 as well, which allows it to be visible to your on-premise applications—something which can be utilized further for business intelligence etc.

upvoted 5 times

 **ananyagupta** 6 months, 2 weeks ago

B is the right answer

upvoted 1 times

 **ASAWS** 6 months, 3 weeks ago

Redshift is not a storage service but Storage gateway is and "You can access your data directly in Amazon S3 from any AWS Cloud application or service." <https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html> and I know Redshift can query data that resides in S3.

upvoted 2 times

 **mesk** 6 months, 3 weeks ago

Redshift A

upvoted 2 times

 **CCNPWILL** 4 months, 1 week ago

this person obviously isn't reading or studying. just guessing and here for answers.

upvoted 3 times

 **robsonchirara** 5 months, 1 week ago

Stop confusing people. The answer is clearly B

upvoted 4 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB

upvoted 4 times

 **Gorille69** 7 months ago

A for me because " be able to use AWS services for data analytics and future visualizations."

upvoted 2 times

 **Harryhero** 7 months, 1 week ago

Answer is B, it can't be A. Don't assume

It clearly asked for which storage service, and redshift is not a storage service.

upvoted 4 times

 **venh123** 6 months, 4 weeks ago

It is D.

upvoted 2 times

 **KALRAV** 6 months, 4 weeks ago

Ans D.

<https://blog.shikisoft.com/restrict-amazon-s3-bucket-access-on-cloudfront/>

upvoted 1 times

 **Gerhard7** 6 months, 4 weeks ago

That article states that it does not work for static websites on S3.

So I'm not sure D is the correct answer.

upvoted 1 times

 **Quitnotherethere123** 7 months, 2 weeks ago

Answer: D

upvoted 1 times

 **Hemanthmk** 7 months, 2 weeks ago

IT'S D

upvoted 1 times

 **sctmp** 7 months, 2 weeks ago

It's D: <https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-awswaf.html>

upvoted 4 times

 **mustafa0099** 7 months, 2 weeks ago

Answer D.

upvoted 1 times

 **Siddharthgarg** 7 months, 3 weeks ago

D? OAI for CF and not S3 and WAF

upvoted 3 times

Question #220

Topic 1

A company has a 143 TB MySQL database that it wants to migrate to AWS. The plan is to use Amazon Aurora MySQL as the platform going forward. The company has a 100 Mbps AWS Direct Connect connection to Amazon VPC.

Which solution meets the company's needs and takes the LEAST amount of time?

- A. Use a gateway endpoint for Amazon S3. Migrate the data to Amazon S3. Import the data into Aurora.
- B. Upgrade the Direct Connect link to 500 Mbps. Copy the data to Amazon S3. Import the data into Aurora.
- C. Order an AWS Snowmobile and copy the database backup to it. Have AWS import the data into Amazon S3. Import the backup into Aurora.
- D. Order four 50-TB AWS Snowball devices and copy the database backup onto them. Have AWS import the data into Amazon S3. Import the data into Aurora.

Correct Answer: D

 **Quitnotherether123** Highly Voted 7 months, 2 weeks ago

Just did the calculation.
100mbps will take 143 days.
500mbps will need to be ordered, then it'll take another 25 days.
Snowmobile is an overkill.
You guessed it, D is the right answer.

upvoted 13 times

 **amxexam** 7 months, 1 week ago

Snowmobile = 10days
2X Snoball = 7 days
Yes D is the least

upvoted 2 times

 **SlimeMould** Highly Voted 7 months, 3 weeks ago

D seems good

upvoted 8 times

 **Afawifi** Most Recent 1 month ago

50 TB Snowballs have 42 TB of usable space. so $42 \times 3 = 126$ (less than 143TB) so they need to order 4 snowballs(168TB).
<https://docs.aws.amazon.com/snowball/latest/ug/specifications.html>

upvoted 3 times

 **Chike** 2 months, 3 weeks ago

Answer is B. It takes 3.3 days to upload if you upgrade to 500MBS. $143 \text{ TB} = 143,000,000\text{MB}$; we have a total of 86400 secs in a day. If you divide $143,000,000$ by 86400 = 3.3 days. Answer is B

upvoted 1 times

 **tinyshare** 1 week, 6 days ago

143TB the big B means Byte
500Mbps the little b means bit
so you need to $3.3 \times 8 = 26.4$ days

upvoted 2 times

 **Chike** 2 months, 3 weeks ago

You still need to divide by 500MBS to get 3.3 days

upvoted 2 times

 **Flass** 2 months, 3 weeks ago

The devil is in the detail, we're upgrading to 500Mbps (bit) as opposed to 500MBps (byte). So you can multiply your 3.3 days by 8... It'll take over 26 days to transfer the data consistently at the max speed and with no interruption.

upvoted 2 times

 **Flass** 2 months, 3 weeks ago

Goes without saying... Option D.

upvoted 1 times

 **waqas** 2 months, 3 weeks ago

Connection is 500Mbps not 500MBPS....so multiple $143,000,000$ by 8 to get bits.....Hell of days man....so D is right.

upvoted 1 times

 **waqas** 2 months, 3 weeks ago

25-26 days will be required.

upvoted 1 times

D. Order four 50-TB AWS Snowball devices and copy the database backup onto them. Have AWS import the data into Amazon S3. Import the data into Aurora.

upvoted 2 times

 **hved** 7 months, 3 weeks ago

Ans is D

upvoted 1 times

Question #221

Topic 1

A company hosts an online shopping application that stores all orders in an Amazon RDS for PostgreSQL Single-AZ DB instance. Management wants to eliminate single points of failure and has asked a solutions architect to recommend an approach to minimize database downtime without requiring any changes to the application code.

Which solution meets these requirements?

- A. Convert the existing database instance to a Multi-AZ deployment by modifying the database instance and specifying the Multi-AZ option.
- B. Create a new RDS Multi-AZ deployment. Take a snapshot of the current RDS instance and restore the new Multi-AZ deployment with the snapshot.
- C. Create a read-only replica of the PostgreSQL database in another Availability Zone. Use Amazon Route 53 weighted record sets to distribute requests across the databases.
- D. Place the RDS for PostgreSQL database in an Amazon EC2 Auto Scaling group with a minimum group size of two. Use Amazon Route 53 weighted record sets to distribute requests across instances.

Correct Answer: A

 **lunamycat** Highly Voted 7 months, 3 weeks ago

Ans A

<https://aws.amazon.com/rds/features/multi-az/>

To convert an existing Single-AZ DB Instance to a Multi-AZ deployment, use the "Modify" option corresponding to your DB Instance in the AWS Management Console.

upvoted 32 times

 **kuman** 5 months, 3 weeks ago

Agree. Answer should be A. YOU just need to do steps in A and AMAZON RDS will perform steps in B.

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html>

upvoted 3 times

 **Kurp** 6 months ago

We need to minimize downtime. "A" creates NO downtime whatsoever. "B" will create downtime as you need to repoint your application to the new DNS record.

Source: <https://aws.amazon.com/rds/faqs/>

upvoted 2 times

 **amxexam** 7 months, 1 week ago

This will cost downtime wrong choice.

upvoted 1 times

 **Sparks026** 7 months, 1 week ago

This action avoids downtime when you convert from Single-AZ to Multi-AZ, but you can experience a performance impact during and after converting to Multi-AZ. This impact can be significant for large write-intensive DB instances.

upvoted 4 times

 **yogen** Highly Voted 4 months, 4 weeks ago

A is correct, for all those are saying its B as A may cause some downtime, its absolutely wrong. from RDS FAQs below the explanation-
Q: What happens when I convert my RDS instance from Single-AZ to Multi-AZ?

For the RDS for MySQL, MariaDB, PostgreSQL and Oracle database engines, when you elect to convert your RDS instance from Single-AZ to Multi-AZ, the following happens:

A snapshot of your primary instance is taken

A new standby instance is created in a different Availability Zone, from the snapshot

Synchronous replication is configured between primary and standby instances

As such, there should be no downtime incurred when an instance is converted from Single-AZ to Multi-AZ. However, you may see increased latency while the data on the standby is caught up to match to the primary.

upvoted 10 times

 **CKLOH** Most Recent 1 month, 1 week ago

Agree. Ans = A. Reference: <https://aws.amazon.com/rds/features/multi-az/> & <https://cloudaffaire.com/aws-rds-multi-az/> (extra info)

upvoted 1 times

 **syu31svc** 3 months ago

"eliminate single points of failure" so that would mean Multi AZ
"minimize database downtime" means quick recovery

Only option A addresses these 2 points from the qn

upvoted 4 times

✉ **KK_uniq** 3 months, 1 week ago

A is correct

upvoted 3 times

✉ **Ni_yot** 3 months, 1 week ago

<https://youtu.be/uiiS1h4PSI8>

Yep its A. Watch the video and its so simple too!

upvoted 3 times

✉ **dmscounter** 3 months, 2 weeks ago

A

This action avoids downtime when you convert from Single-AZ to Multi-AZ, but you can experience a performance impact during and after converting to Multi-AZ. This impact can be significant for large write-intensive DB instances.

upvoted 2 times

✉ **Yogi** 3 months, 2 weeks ago

A is correct

upvoted 2 times

✉ **softarts** 4 months, 4 weeks ago

why A has downtime?

upvoted 2 times

✉ **FrostForrest** 5 months, 1 week ago

A is the answer, it specifically states you can't change ANY application code. If you create a new RDS Multi AZ Deployment, how will the application know to send the data there if you cannot change the code?

You're left with the only plausible answer, A.

upvoted 4 times

✉ **shetoshandas** 5 months, 2 weeks ago

Answer is A:

You can use the console to convert existing DB instances to Multi-AZ deployments by modifying the DB instance and specifying the Multi-AZ option

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html>

upvoted 1 times

✉ **prem4bio** 6 months ago

Ans A

<https://aws.amazon.com/rds/faqs/>

upvoted 1 times

✉ **ZenonZiutas** 6 months ago

aaaaaa

upvoted 1 times

✉ **anpt** 6 months, 1 week ago

BBBBBBBBBBBB

upvoted 3 times

✉ **rlandire** 4 months, 1 week ago

"without requiring any changes to the application code". If we create a new RDS deployment, the application needs to point to the new RDS deployment meaning you need to change the app code.

upvoted 2 times

✉ **Bbm2020** 6 months, 2 weeks ago

correction it should be B

upvoted 1 times

✉ **Bbm2020** 6 months, 2 weeks ago

A

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html>

upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAAAAAAAA

upvoted 3 times

✉ **luch00204** 6 months, 2 weeks ago

It should be B

Modifying a DB instance to be a Multi-AZ deployment

If you have a DB instance in a Single-AZ deployment and modify it to a Multi-AZ deployment (for engines other than Amazon Aurora), Amazon RDS takes several steps. First, Amazon RDS takes a snapshot of the primary DB instance from your deployment and then restores the snapshot

into another Availability Zone. Amazon RDS then sets up synchronous replication between your primary DB instance and the new instance.

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html>

upvoted 3 times

Question #222

Topic 1

A company has a 10 Gbps AWS Direct Connect connection from its on-premises servers to AWS. The workloads using the connection are critical. The company requires a disaster recovery strategy with maximum resiliency that maintains the current connection bandwidth at a minimum. What should a solutions architect recommend?

- A. Set up a new Direct Connect connection in another AWS Region.
- B. Set up a new AWS managed VPN connection in another AWS Region.
- C. Set up two new Direct Connect connections: one in the current AWS Region and one in another Region.
- D. Set up two new AWS managed VPN connections: one in the current AWS Region and one in another Region.

Correct Answer: C

 **VinceL88** Highly Voted 7 months, 2 weeks ago

A. The company already has a DX connection in the current Region, so just needs another one in another Region for DR.
upvoted 21 times

 **noahsark** 2 months, 1 week ago

C for maximum resiliency

<https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 5 times

 **Spike2020** 2 days, 16 hours ago

according to the link you sent, it should be 2 not 3. There is already 1 DX, so they only need one more.
upvoted 1 times

 **cookieflo** 1 month ago

from this site: For critical production workloads that require high resiliency, it is recommended to have ONE connection at multiple locations. As shown in the figure above, such a topology ensures resilience to connectivity failure due to a fiber cut or a device failure as well as a complete location failure.

upvoted 1 times

 **zxing233** 3 weeks, 1 day ago

there is another below called "Maximum Resiliency for Critical Workloads".... read carefully
upvoted 1 times

 **kimalto452** 6 months, 2 weeks ago

3 dx its more resilient than 2...
having 2 in one region you maintain the first at minimum capacity...
upvoted 3 times

 **Quitnotherethere123** 7 months, 2 weeks ago

Exactly!
upvoted 2 times

 **FeatheredandDeadly** Highly Voted 7 months, 3 weeks ago

Answer is A or C. If we want to "maximize" resiliency, than C makes more sense. Having 2 new DXs.
upvoted 17 times

 **Eybialot** 6 months, 2 weeks ago

Does that mean if we had an option for 5 new Dxs, we should choose that option for max resiliency.?
upvoted 7 times

 **Mahaan** 5 months ago

yes, your question makes sense. I vote for AAAAAAAA
upvoted 1 times

 **sctmp** 7 months, 2 weeks ago

I agree. It should be C for maximum resiliency.
upvoted 2 times

 **noahsark** 2 months, 1 week ago

yes, C for maximum resiliency:
<https://aws.amazon.com/directconnect/resiliency-recommendation/>
upvoted 3 times

 **vamshidhara** Most Recent 1 week, 4 days ago

A

They mentioned only one on-premises datacenter, so in total we need 2 DX connections(one DX is already in place add one more DX Connection for maximum resiliency)

upvoted 1 times

 **patriktre** 3 weeks, 6 days ago

in the link <https://aws.amazon.com/directconnect/resiliency-recommendation/> there is 1 + 1 for high resiliency and 2 + 2 for maximum resiliency. even answer C does not match it

upvoted 1 times

 **juren_saa** 4 weeks ago

maximum resiliency...at a minimum, this is may English exam :0

upvoted 1 times

 **CKLOH** 1 month, 1 week ago

Agree. Answer = C. Reference: <https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 1 times

 **SilentJay** 2 months, 2 weeks ago

100% C

No mention of cost

The workloads using the connection are "critical" so more redundancy is better.

The workloads are in "grave" danger of being lost due to lack of redundancy. "Grave" danger? Is there another kind?

upvoted 2 times

 **Abdullah777** 2 months, 4 weeks ago

Maximum resilience is achieved by separate connections terminating on separate devices in more than one location. This configuration offers customers maximum resilience to failure. As shown in the figure above, such a topology provides resilience to device failure, connectivity failure, and complete location failure. You can use Direct Connect Gateway to access any AWS Region (except AWS Regions in China) from any AWS Direct Connect locations.

just see the topology please and you will know that it is C.

<https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 4 times

 **syu31svc** 3 months ago

<https://aws.amazon.com/directconnect/resiliency-recommendation/>

Answer is C

upvoted 4 times

 **KK_uniq** 3 months, 1 week ago

C for me

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans=. Set up a new Direct Connect connection in another AWS Region.

upvoted 2 times

 **Vishvashkumar** 4 months ago

current connection bandwidth at a minimum.

The answer : B

upvoted 1 times

 **Sam82** 4 months, 2 weeks ago

Answer is C

<https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 3 times

 **NSF** 4 months ago

If you look at the example, it is different direct connect location, connecting to a single region. Because DX sits before AWS regions.

upvoted 1 times

 **NSF** 4 months, 2 weeks ago

This doesn't absolutely make sense. Because when you have a direct connect, it requires direct connect gateway (DXG), which is global and you can attach a VPC or a Transit Gateway from any region to it.

So in this case, having another direct connect will provide diversity and resilience but why does it have to be another region or is talking about different on-prem location ?

Very ambiguous 

upvoted 3 times

 **CCNPWILL** 4 months, 2 weeks ago

you can sift past the ambiguity by reading the question slowly. word for word. this question is looking for a specific answer. the question provides details on what to look for. ' keep bandwidth ' at a minimum. so we need to keep the DX. and add resiliency. C does this the best. may

be overkill but that's fine.

upvoted 1 times

✉ **NSF** 4 months ago

Ok my argument here is that DX is not regional, it is global. Unless answer refers to 'region' as on prem DC locations that it makes sense.

upvoted 1 times

✉ **yogen** 4 months, 4 weeks ago

Maximum Resiliency --> Multi Device - multi Location, High resiliency --> High Availability (just one extra redundancy is enough) so more than one sites is enough, For Dev and test-->Multi device - Single location. So answer is C

upvoted 2 times

✉ **Mahaan** 5 months ago

CCCC - <https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 2 times

✉ **Elias23** 5 months, 2 weeks ago

please read the question one more time, he is asking For MAXIMUM and NOT HIGH resilience so the answer is CCCCC of course

Please check this link and have a look at the difference between :

High Resiliency for Critical Workloads (the case for A)

AND

Maximum Resiliency for Critical Workloads(the case for C)

<https://aws.amazon.com/directconnect/resiliency-recommendation/>

upvoted 3 times

Question #223

Topic 1

A solutions architect is designing a VPC with public and private subnets. The VPC and subnets use IPv4 CIDR blocks. There is one public subnet and one private subnet in each of three Availability Zones (AZs) for high availability. An internet gateway is used to provide internet access for the public subnets. The private subnets require access to the internet to allow Amazon EC2 instances to download software updates.

What should the solutions architect do to enable internet access for the private subnets?

- A. Create three NAT gateways, one for each public subnet in each AZ. Create a private route table for each AZ that forwards non-VPC traffic to the NAT gateway in its AZ.
- B. Create three NAT instances, one for each private subnet in each AZ. Create a private route table for each AZ that forwards non-VPC traffic to the NAT instance in its AZ.
- C. Create a second internet gateway on one of the private subnets. Update the route table for the private subnets that forward non-VPC traffic to the private internet gateway.
- D. Create an egress-only internet gateway on one of the public subnets. Update the route table for the private subnets that forward non-VPC traffic to the egress- only internet gateway.

Correct Answer: A

✉  **SlimeMould** Highly Voted 7 months, 3 weeks ago

The answer is A for me, but what "forwards non-VPC traffic" does mean, there is nothing about "non-VPC traffic"
upvoted 23 times

✉  **mahdeo01** 1 week, 6 days ago

Two things to remember regarding NAT Gateway :

#1) It is always placed in Public Subnet

#2 in the event of AZ failure the NAT gateway becomes unavailable and the resources within other Availability Zones loose internet access. To create a fault-tolerant architecture, make sure that your AWS NAT gateways are deployed in at least two Availability Zones (AZs) OR More...

upvoted 3 times

✉  **CloudK** 7 months, 3 weeks ago

A is ok. I think non vpc means external traffic (update, patches, etc).

upvoted 6 times

✉  **anpt** Highly Voted 6 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 11 times

✉  **tdt** 6 months ago

try to explain why u pick the answer rather than just type a word. F**k u

upvoted 7 times

✉  **SirReadALot** 5 months, 3 weeks ago

Lol!! He is a legend.. he does have to explain himself!!

upvoted 3 times

✉  **tinyshare** Most Recent 1 week, 6 days ago

The dude made this question should improve his English. It should be "in the public subnet for the private subnet". Base on the "don't think too much" rule, I still choose A. Of course everything is "for the private subnet", it is implied.

upvoted 1 times

✉  **Navya_9** 1 month ago

B. As NAT Gateway can be used only on private subnets <https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-gateway.html>

upvoted 1 times

✉  **Cyyz** 3 weeks, 2 days ago

Mate, you need to study a bit more, NAT GW's can only be placed in Public subnets, then create route table in private to go through NAT gateway for outside connection.

upvoted 2 times

✉  **CKLOH** 1 month, 1 week ago

Ans = A

1. NAT Gateways = connect Private Subnets to the Internet

2. NAT gateways = Highly available

3. NAT Gateway = a highly available AWS managed service that makes it easy to connect to the Internet from instances within a private subnet in an Amazon Virtual Private Cloud (Amazon VPC). Previously, you needed to launch a NAT instance to enable NAT for instances in a private subnet.

4. VPN NAT Gateways reside in Public Subnets > have to configure NAT Gateways in Public Subnet > then associate NAT Gateways in Private Subnet route table

5. Reference:

<https://aws.amazon.com/about-aws/whats-new/2018/03/introducing-amazon-vpc-nat-gateway-in-the-aws-govcloud-us-region/#:~:text=NAT%20Gateway%20is%20a%20highly,instances%20in%20a%20private%20subnet>

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-comparison.html>

upvoted 2 times

✉ **cloudset** 1 month, 3 weeks ago

B - feels like Amazon is testing for grammar skills rather than architecting skills :(
Create three NAT (instances/gateways) in public subnet, one for each private subnet in each AZ

upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

The answer is A. This is a repeated question.

upvoted 1 times

✉ **developer_404** 2 months, 2 weeks ago

Answer is B

'One "for" each public subnet' in Answer A is misleading. U create NAT Gateways "in" public subnet "for" private subnet. Answer B makes more sense, it says Create 3 Nat Instances "for" each private subnets.

NAT gateway should be the answer, however the answer here is misleading for A, hence I choose B which suits more.

upvoted 2 times

✉ **syu31svc** 3 months ago

Answer is A

NAT gateways over NAT instances anytime

upvoted 4 times

✉ **primanturin** 3 months ago

The answer is A

First, NAT instances are not recommended by AWS anymore.

Second, the solution must seek for HA:

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-natcomparison.html>

- Availability

NAT gateway:

Highly available. NAT gateways in each Availability Zone are implemented with redundancy. Create a NAT gateway in each Availability Zone to ensure zone independent architecture.

NAT instance:

Use a script to manage failover between instances.

upvoted 1 times

✉ **KK_uniq** 3 months, 1 week ago

A for sure

upvoted 1 times

✉ **Yogi** 3 months, 3 weeks ago

Ans=A. Create three NAT gateways, one for each public subnet in each AZ. Create a private route table for each AZ that forwards non-VPC traffic to the NAT gateway in its AZ.

upvoted 1 times

✉ **Yogi** 3 months, 2 weeks ago

FYI: NAT instances are old school

upvoted 2 times

✉ **AwsNewPeople** 3 months, 3 weeks ago

Absolutely A, those who are saying it's B please read below,

Internet traffic from the instances in the private subnet is routed to the NAT instance, which then communicates with the internet. Therefore, the NAT instance must have internet access. It must be in a public subnet (a subnet that has a route table with a route to the internet gateway), and it must have a public IP address or an Elastic IP address. All NAT (be it Gateway/Instance) must be set up in Public in order to connect to the internet, so B create NAT instance in private is WRONG.

The only possible answer here is A

upvoted 3 times

✉ **examdummy22** 4 months ago

NAT instances are always located in the public subnet, so B is out of the game.

However, strange wording question - why using FOR a subnet, instead of IN a subnet?

upvoted 2 times

✉ **toto059** 4 months, 1 week ago

it is came and answer is A

upvoted 1 times

 **AA11** 4 months, 1 week ago

Agreed.. Answer is B.

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-gateway.html>

To create a NAT gateway, you must specify the public subnet in which the NAT gateway should reside.

After you've created a NAT gateway, you must update the route table associated with one or more of your private subnets to point internet-bound traffic to the NAT gateway. This enables instances in your private subnets to communicate with the internet.

upvoted 2 times

 **arberod** 4 months, 2 weeks ago

Ans B

Nat creates in public subnet, but FOR private subnets. So A is out.

upvoted 1 times

Question #224

Topic 1

As part of budget planning, management wants a report of AWS billed items listed by user. The data will be used to create department budgets. A solutions architect needs to determine the most efficient way to obtain this report information.

Which solution meets these requirements?

- A. Run a query with Amazon Athena to generate the report.
- B. Create a report in Cost Explorer and download the report.
- C. Access the bill details from the billing dashboard and download the bill.
- D. Modify a cost budget in AWS Budgets to alert with Amazon Simple Email Service (Amazon SES).

Correct Answer: B

 **haaris786** Highly Voted  2 months, 3 weeks ago

B is my take. I would also request people to stop posting wrong and long explanation to confuse others.
upvoted 12 times

 **ericshun** 2 months, 2 weeks ago

Couldn't agree with you more.
upvoted 6 times

 **SlimeMould** Highly Voted  7 months, 3 weeks ago

B is ok - <https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-reports.html>
upvoted 12 times

 **ThePunisher77** 7 months ago

So Answer is A
upvoted 2 times

 **tinyshare** Most Recent  1 week, 6 days ago

Ans B: As I report to my boss, I need to visualize and simplify everything.
The "management" is the keyword. You don't give your boss details, it will only confuse them.
upvoted 1 times

 **CKLOH** 1 month, 1 week ago

Ans = B
<https://aws.amazon.com/aws-cost-management/aws-cost-explorer/>
upvoted 1 times

 **Samm757** 1 month, 3 weeks ago

Ans - B
Cost Explorer generates the AWS Cost and Usage Reports and the detailed billing reports.
<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-what-is.html>
upvoted 5 times

 **Abdullah777** 2 months, 4 weeks ago

take it easy guys
"Cost Explorer provides default reports, but also enables you to change the filters and constraints used to create the reports. Cost Explorer also provides you ways to save the reports that you made. You can save them as a bookmark, download the CSV file, or save them as a report."
<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-reports.html>
B
upvoted 2 times

 **syu31svc** 3 months ago

100% is B
<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-what-is.html>
upvoted 2 times

 **AI** 3 months, 1 week ago

The answer is B as the architect is interested to get the report, as asked by the question. The purpose is to create a budget, but the question does not ask about budget creation. Hence, the answer is B, instead of D.
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Create a report in Cost Explorer and download the report.
<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-default-reports.html#ce-linked-costs>
upvoted 1 times

 **argol** 6 months ago

AWS Billing and Cost Management is the service that YOU use to pay your AWS bill, monitor your usage, and analyze and control your costs.

How do I get a report that shows the usage of individual member accounts in my organization?

Cost Explorer

upvoted 3 times

 **mode** 6 months, 3 weeks ago

Where can you get a report of AWS billed listed by user? the only way is tag every resource and after that use Cost & Usage Reports. for me the closest option would be Monthly costs by linked account from Cost Explorer, so B

upvoted 2 times

 **Vibes360** 6 months, 3 weeks ago

B! Look up cost explorer vs aws budget. Explorer gives you a breakdown of your usage as per the question while budget is a plan that alerts you when you exceed limits

upvoted 4 times

 **hqmb** 6 months ago

That's true, you could filter expense by "linked account" in cost explorer

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBBB

upvoted 5 times

 **KALRAV** 6 months, 4 weeks ago

B - <https://aws.amazon.com/premiumsupport/knowledge-center/consolidated-linked-billing-report/>

upvoted 2 times

 **Gorille69** 7 months ago

(B) for me, Because : . Analyze your data at a HIGHT LEVEL (Exemple : for usage and total costs across all accounts)

upvoted 2 times

 **amxexam** 7 months, 1 week ago

Part 1

Answer option C

A - Athens is for SQL query on data on S3. Not relevant to our question.

B - Cost Explorer - Analyse and visualize cost 12 months past and next 12 months, get a recommendation.

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-what-is.html>

upvoted 1 times

 **amxexam** 7 months, 1 week ago

Part 2

C - AWS Billing and Cost Management is the service that you use to pay your AWS bill, monitor your usage, and analyze and control your costs.

Features

-Estimate and plan your AWS costs

-Receive alerts if your costs exceed a threshold that you set

-Assess your biggest investments in AWS resources

-Simplify your accounting if you work with multiple AWS accounts.

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/billing-what-is.html>

Getting billing report with AWS Billing and Cost Management

<https://docs.aws.amazon.com/cur/latest/userguide/what-is-cur.html>

upvoted 1 times

 **amxexam** 7 months, 1 week ago

Part3

D - AWS Budgets lets you set custom budgets that alert you when you exceed (or are forecasted to exceed) the thresholds that you set. In this post, we are covering how you can use AWS Budgets to set a custom cost budget that tracks your costs at the monthly level, configure alerts that will notify you when your user-defined spend thresholds are reached and show you how you can use AWS Budgets to monitor your overarching budget portfolio.

<https://aws.amazon.com/blogs/aws-cost-management/getting-started-with-aws-budgets/>

upvoted 1 times

 **babbalu** 7 months ago

What exactly you want to say? First please make sure in your mind about the answer and then comment... otherwise many people get confused? whats the hurry in posting the comments.. one should think twice and then post for others please..

upvoted 35 times

 **amxexam** 7 months, 1 week ago

The solution is D and not B

A - Athens is for SQL query on data on S3. Not relevant to our question.

B - Cost Explorer - Analyse and visualize cost 12 months past and next 12 months, get a recommendation.

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ce-what-is.html>

C - AWS Billing and Cost Management is the service that you use to pay your AWS bill, monitor your usage, and analyze and control your costs.

Features

-Estimate and plan your AWS costs
-Receive alerts if your costs exceed a threshold that you set
-Assess your biggest investments in AWS resources
-Simplify your accounting if you work with multiple AWS accounts.
<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/billing-what-is.html>
D - AWS Budgets - Managing your costs with AWS Budgets
A lot of features, main allows you to view the bill, whose report you need as per the question.

upvoted 1 times

✉  **amxexam** 7 months, 1 week ago

IGNORE THIS

upvoted 4 times

✉  **amxexam** 7 months, 1 week ago

Sorry D - definition got a bit messed up

AWS Budgets lets you set custom budgets that alert you when you exceed (or are forecasted to exceed) the thresholds that you set. In this post, we are covering how you can use AWS Budgets to set a custom cost budget that tracks your costs at the monthly level, configure alerts that will notify you when your user-defined spend thresholds are reached and show you how you can use AWS Budgets to monitor your overarching budget portfolio.

<https://aws.amazon.com/blogs/aws-cost-management/getting-started-with-aws-budgets/>

Also, the solution is C

upvoted 1 times

✉  **amxexam** 7 months, 1 week ago

IGNORE THIS

upvoted 3 times

✉  **amxexam** 7 months, 1 week ago

The solution is C not B or D

Please ignore this complete thread, I will put the justification properly.

upvoted 1 times

✉  **amxexam** 7 months, 1 week ago

IGNORE THIS

upvoted 3 times

✉  **Wally44** 4 weeks ago

xD xD xD

upvoted 2 times

Question #225

Topic 1

A company with facilities in North America, Europe, and Asia is designing new distributed application to optimize its global supply chain and manufacturing process. The orders booked on one continent should be visible to all Regions in a second or less. The database should be able to support failover with a short

Recovery Time Objective (RTO). The uptime of the application is important to ensure that manufacturing is not impacted.

What should a solutions architect recommend?

- A. Use Amazon DynamoDB global tables.
- B. Use Amazon Aurora Global Database.
- C. Use Amazon RDS for MySQL with a cross-Region read replica.
- D. Use Amazon RDS for PostgreSQL with a cross-Region read replica.

Correct Answer: A

 **amxexam** Highly Voted 7 months, 1 week ago

There are 2 points, important in the question

- 1) write propagation
- 2) recovery should be very short.

Eliminating C and D logically

Aurora Global Db has less than second of point 1.

Dynamo DB has millisecond

The only difference is in recovery.

There is no point mentioned in Dynamo Global Table for recovery its in Dynamo DB which has point in time recovery, not a recovery in seconds. But as Aurora Global spins secondary cluster its quickly in seconds promotes secondary to primary in case of primary failure.

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/GlobalTables.html>

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-global-database.html>

Comparing both I will go with B.

upvoted 33 times

 **crazyaboutazure** 2 weeks, 2 days ago

Answer is A because

1. RTO is comparable for both Global database and global table but

2. Aurora has one primary region for Read and Write and other regions can only do read which means order update/write in other regions wont be possible except primary region but with DynamoDb global table Instead of writing your own code, you could create a global table consisting of your three Region-specific CustomerProfiles tables. DynamoDB would then automatically replicate data changes among those tables so that changes to CustomerProfiles data in one Region would seamlessly propagate to the other Regions. In addition, if one of the AWS Regions were to become temporarily unavailable, your customers could still access the same CustomerProfiles data in the other Regions.

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/GlobalTables.html>

So Dynamodb Global Table is true answer here

upvoted 3 times

 **Negus007** 3 weeks, 4 days ago

The answer is B, I believe "orders booked on one continent should be visible to all Regions in a second or less" is the defining factor, the question hardly says anything about "multi-master write capabilities"

upvoted 1 times

 **SlimeMould** Highly Voted 7 months, 3 weeks ago

Well, it could be A or B, A is good, but there is mention that we need "failover" so it's clearly point on Aurora, since DynamoDB can't failover at all

The answer is: B

upvoted 16 times

 **Kurp** 6 months ago

Answer is DynamoDB.

Both DynamDB and aurora global tables achieve the less than a second replication

Aurora global table has one Primary region for READS & WRITES and one or more secondary regions for READS only. The question states : "orders booked on one continent should be visible to all Regions in a second or less" Meaning any region can book an order which implies they all need to write locally. Only DynamoDB can achieve this.

upvoted 11 times

 **CCNPWILL** 4 months, 1 week ago

Correct. B has greater cross region capabilities than Dynamo. Especially if we have to compare the two? I mean its no debate if you really know your stuff. No service is better than Aurora at this type of config.

upvoted 1 times

 **kuman** 5 months, 3 weeks ago

I initially thought it was B, but upon checking, it is A. Even the regions in the example on its product page is identical to this question, and it also mentioned "In a global table, a newly written item is usually propagated to all replica tables within a second".

upvoted 2 times

 **daekum** 6 months, 3 weeks ago

Agree -

Sub-Second Data Access in Any Region latencies below 1 second & Recovery Time Objective (RTO) of less than 1 minute
<https://aws.amazon.com/rds/aurora/global-database/>

upvoted 2 times

 **rohith3008** Most Recent 5 days, 19 hours ago

Answer : B Aurora

RTO need to be less than a second and it is possible with Aurora. For DynamoDB the RTO is "few" seconds.

RTO of a few seconds and an RPO of 15 minutes for application data stored in Amazon S3 and Amazon DynamoDB.

<https://docs.aws.amazon.com/solutions/latest/multi-region-application-architecture/overview.html>

upvoted 1 times

 **tinshare** 1 week, 6 days ago

Long before considering failover time, an architect should consider it is a SQL or no-SQL first. It is comparing apples and oranges. Since there is no commitment of failover time in DynamoDB, I will choose B.

upvoted 1 times

 **mahdeo01** 1 week, 6 days ago

I think the key words that are important to note here are the last line of the problem statement - "The uptime of the application is important...." , and I guess "DynamoDB" has more Availability than Aurora when I compare the two SLAs

<https://aws.amazon.com/rds/aurora/sla/>
<https://aws.amazon.com/dynamodb/sla/>

So, My answer is -- A

upvoted 1 times

 **Kenzo** 2 weeks, 2 days ago

B

<https://aws.amazon.com/rds/aurora/global-database/>

upvoted 1 times

 **vtayal** 2 weeks, 4 days ago

Answer should be A only as Aurora global database does not allow write operation on secondary DB where as customer can place an order anywhere from any region. here customer wants to replicate data within 1 sec , DynamoDB global tables Replication latency is under 1 sec and allow read/write on replicated table in each region.

upvoted 1 times

 **Veny** 2 weeks, 5 days ago

Will go with B, Reason being promoting another region for DR has an RTO OF 1MINUTES

upvoted 1 times

 **Sathisgm** 3 weeks, 5 days ago

In a global table, every replica table shares the same table name and the same primary key. Because a global table is a multimaster database, applications can write data to any of the replica tables. DynamoDB automatically propagates these writes to the other replica tables in the AWS Regions you choose

It's A

upvoted 2 times

 **sangu1** 2 months, 1 week ago

Answer is A

upvoted 2 times

 **Suresh108** 2 months, 1 week ago

Possible answers A & B.

I am for AAAA (https://aws.amazon.com/dynamodb/global-tables/
benefits - Read and write locally, access your data globally)

why ---> "orders booked on one continent should be visible to all Regions in a second or less" you can write on all the regions on dynamo DB global tables. not on amazon aurora global database.

correct me if i am wrong with points.

upvoted 1 times

 **SandyIndia** 2 months, 3 weeks ago

Answer is B.

Aurora Global Database is Active-Passive with Primary Region Write & Secondary region Read failover to read only in RTO.
Dynamo DB Global tables used for active-active with Read & Write globally.

upvoted 1 times

✉ **elrmel** 2 months, 3 weeks ago

we have to concentrate on "short recovery time"
then Aurora Global database is the answer.

upvoted 1 times

✉ **Kopa** 2 months, 3 weeks ago

I think its A, because its saying: "global supply chain and manufacturing process", typical dynamodb applicable case.
upvoted 1 times

✉ **Kopa** 2 months, 1 week ago

<https://docs.aws.amazon.com/solutions/latest/multi-region-application-architecture/overview.html>

An application's Recovery Time Objective (RTO) and Recovery Point Objective (RPO) are important metrics when considering failover and disaster recovery scenarios. This solution allows for an RTO of a few seconds and an RPO of 15 minutes for application data stored in Amazon S3 and Amazon DynamoDB.

upvoted 1 times

✉ **Abdullah777** 2 months, 4 weeks ago

his question clearly shown here
<https://aws.amazon.com/dynamodb/global-tables/>
it is A
upvoted 8 times

✉ **DerekKey** 3 months ago

Aurora is wrong
Aurora global databases currently don't support the Aurora multi-master clusters (writes in different regions)
upvoted 2 times

✉ **DerekKey** 3 months ago

Dynamo performance
Global tables enable you to read and write your data locally providing single-digit-millisecond latency for your globally distributed application at any scale.
<https://aws.amazon.com/dynamodb/global-tables/>
upvoted 1 times

✉ **syu31svc** 3 months ago

<https://aws.amazon.com/rds/aurora/global-database/>:
"Your applications enjoy quick data access regardless of the number and location of secondary regions, with typical cross-region replication latencies below 1 second"
" An Aurora cluster can recover in less than 1 minute even in the event of a complete regional outage. This provides your application with an effective Recovery Point Objective (RPO) of 1 second and a Recovery Time Objective (RTO) of less than 1 minute"

I would take B

upvoted 4 times

Question #226

Topic 1

A company's near-real-time streaming application is running on AWS. As the data is ingested, a job runs on the data and takes 30 minutes to complete. The workload frequently experiences high latency due to large amounts of incoming data. A solutions architect needs to design a scalable and serverless solution to enhance performance.

Which combination of steps should the solutions architect take? (Choose two.)

- A. Use Amazon Kinesis Data Firehose to ingest the data.
- B. Use AWS Lambda with AWS Step Functions to process the data.
- C. Use AWS Database Migration Service (AWS DMS) to ingest the data.
- D. Use Amazon EC2 instances in an Auto Scaling group to process the data.
- E. Use AWS Fargate with Amazon Elastic Container Service (Amazon ECS) to process the data.

Correct Answer: AE

 **amxexam** Highly Voted 7 months, 1 week ago

The solution is A and E

There are 2 ingestion and 3 processor
Since the near real-time we choose Firehose - A - First step

We are left with processor, B , D and E

We know lambda can run max for 15 min and the job is of 30 min so lambda is out.

<https://aws.amazon.com/lambda/faqs/#:~:text=AWS%20Lambda%20functions%20can%20be,1%20second%20and%2015%20minutes.>

We are left with D and E

Both will work but the question specifies serverless hence E - step 2

<https://aws.amazon.com/fargate/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc&fargate-blogs.sort-by=item.additionalFields.createdDate&fargate-blogs.sort-order=desc>

So A and E is the solution

upvoted 58 times

 **lalia** 3 weeks, 1 day ago

You're right. Thanks.

<https://aws.amazon.com/blogs/compute/building-a-scalable-log-solution-aggregator-with-aws-fargate-fluentd-and-amazon-kinesis-data-firehose/>

We really can use Fargate with Firehose

upvoted 2 times

 **olumba** 1 month, 2 weeks ago

I appreciate this kind of explanation. I have also been able to learn that Lamda can only run for max 15 mins which might help to answer another question

thank you

upvoted 5 times

 **Rododendron2** 2 days, 8 hours ago

Lambda Step Functions use cases: Can help ensure that long-running, multiple ETL jobs execute in order and complete successfully, instead of manually orchestrating those jobs or maintaining a separate application.

<https://aws.amazon.com/step-functions/?step-functions.sort-by=item.additionalFields.postDateTime&step-functions.sort-order=desc>

upvoted 1 times

 **krovistan** 2 months, 1 week ago

lambda with Step fuctions, not a lambda function

upvoted 1 times

 **ansh18061986** 2 months, 1 week ago

Well explained . Thanks .

upvoted 2 times

 **SlimeMould** Highly Voted 7 months, 3 weeks ago

The answer A & E

upvoted 29 times

 **tinyshare** Most Recent 1 week, 6 days ago

A standard lambda step function has a duration for a year.

<https://docs.aws.amazon.com/step-functions/latest/dg/concepts-standard-vs-express.html>

upvoted 1 times

✉ **tinysshare** 1 week, 6 days ago

Should be A and B.

Please notice Lambda step function is not just Lambda, it is Lambda functions in parallel.

Lambda 1: Step 1 -> Step 2 -> Step 3

Lambda 2: Step 1 -> Step 2

Lambda 3: Step 1

<https://aws.amazon.com/step-functions/use-cases/>

Although a container is serverless, you must put something in the container. A container can't run by itself.

upvoted 1 times

✉ **henry_x** 1 month, 1 week ago

A+B. AWS step function is designed to sequence Lambda functions.

upvoted 2 times

✉ **Samantha23** 1 month ago

Lambda maximum execution time is 15 minutes. Processing requires 30 minutes in this case. B can't be the answer

upvoted 2 times

✉ **tinysshare** 4 days ago

step function, not just lambda

upvoted 1 times

✉ **ssSsEclipse** 2 months ago

A for no doubt, but then B or E?

The point is, with Kinesis Firehose you can configure to trigger Lambda but not Fargate, I mean how are you going to integrate Kinesis Firehose without having any other services/components? Dont forget Kinesis Firehose's destination is only S3.

So the ans must be A,B

upvoted 3 times

✉ **Rupesh1987** 2 weeks, 4 days ago

Lambda has its limitations. It could run any function for maximum 900 seconds (15 minutes) and in question it is clearly mentioned that work would run 30 minutes. This easily eliminates lambda as an option.

upvoted 1 times

✉ **tinysshare** 4 days ago

step function, not just lambda. It cuts big jobs into smaller jobs. So 15 minute limitation is not an issue for the step function.

upvoted 1 times

✉ **GuxMAN** 2 months, 2 weeks ago

Here i found a good blog with map decision between Fargate and Lambda <https://greenm.io/aws-lambda-or-aws-fargate/>

I still thinking the response is A and E, I choose Fargate for more capacity to process a lot of amount of data. I hope it serves you.

upvoted 1 times

✉ **tinysshare** 4 days ago

again, it is the step function, not just lambda. This page does not address the issue.

upvoted 1 times

✉ **Flass** 2 months, 3 weeks ago

Real Time = Kinesis

Serverless & Scalable = Fargate or Lambda

Runtime 30min = Fargate

So... A. and E

upvoted 8 times

✉ **syu31svc** 3 months ago

Near real time to ingest data so Firehose -> A

serverless and 30 mins to complete -> Fargate so E

<https://docs.aws.amazon.com/lambda/latest/dg/configuration-console.html>:

"Timeout – The amount of time that Lambda allows a function to run before stopping it. The default is three seconds. The maximum allowed value is 900 seconds."

Lambda is wrong so B is out

upvoted 1 times

✉ **syu31svc** 2 months, 2 weeks ago

Change my mind to A and B since step functions can chain Lambda functions

Furthermore, containers are not meant for processing. Just my thoughts

upvoted 2 times

✉ **KK_uniq** 3 months, 1 week ago

AB looks ok

upvoted 1 times

✉ **massyg** 3 months ago

Lambda timeout = 15 min

upvoted 2 times

✉ **tinyshare** 1 week, 6 days ago

It is Lambda step functions, not just Lambda.

upvoted 2 times

✉ **nik351** 3 months, 2 weeks ago

Answer AB 100%

<https://hands-on.cloud/aws-step-functions-how-to-manage-long-running-tasks/#:~:text=AWS%20Lambda%20is%20a%20service,Machine%20Learning%20or%20Media%20Processing.>

upvoted 1 times

✉ **Yogi** 3 months, 3 weeks ago

Ans=A and E

upvoted 2 times

✉ **GpIXtreme** 4 months ago

Lambda timeout it's 15 minutes. B is out, A+E correct.

upvoted 1 times

✉ **ismai1** 4 months, 1 week ago

Serverless AWS services

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

the answer A E

upvoted 1 times

✉ **sat2008** 4 months, 1 week ago

I am stuck with -A- here if someone can enlighten Data Firehose is for processing not ingesting . Data ingest done by Kinesis Data Stream and this option is not here?

upvoted 3 times

✉ **NSF** 4 months, 2 weeks ago

Step function is Serverless and orchestrate multiple AWS services to perform one task. An output of one step could be an input of another step.

But it is not processing data therefore best answer is E coupled with A.

upvoted 1 times

✉ **awnayak** 6 months ago

Seems to be B&E most appropriate

B- we can break the code into smaller chunks and run using lambda step function.

<https://docs.aws.amazon.com/step-functions/latest/dg/tutorial-create-iterate-pattern-section.html>

E - ECS farget is serverless

A - does not talk about processing of Data

upvoted 1 times

✉ **GuxMAN** 2 months, 2 weeks ago

Kinesis Data Firehose can ingest streaming data and transform it before sending it to a destination.

upvoted 1 times

✉ **CCNPWILL** 4 months, 2 weeks ago

A does. Go study

upvoted 2 times

Question #227

Topic 1

An application running on an Amazon EC2 instance needs to access an Amazon DynamoDB table. Both the EC2 instance and the DynamoDB table are in the same AWS account. A solutions architect must configure the necessary permissions. Which solution will allow least privilege access to the DynamoDB table from the EC2 instance?

- A. Create an IAM role with the appropriate policy to allow access to the DynamoDB table. Create an instance profile to assign this IAM role to the EC2 instance.
- B. Create an IAM role with the appropriate policy to allow access to the DynamoDB table. Add the EC2 instance to the trust relationship policy document to allow it to assume the role.
- C. Create an IAM user with the appropriate policy to allow access to the DynamoDB table. Store the credentials in an Amazon S3 bucket and read them from within the application code directly.
- D. Create an IAM user with the appropriate policy to allow access to the DynamoDB table. Ensure that the application stores the IAM credentials securely on local storage and uses them to make the DynamoDB calls.

Correct Answer: A

 **hqmb** Highly Voted 6 months ago

A is correct

Roles are designed to be "assumed" by other principals which do define "who am I?", such as users, Amazon services, and EC2 instances. An instance profile, on the other hand, defines "who am I?" Just like an IAM user represents a person, an instance profile represents EC2 instances. The only permissions an EC2 instance profile has is the power to assume a role.

So the EC2 instance runs under the EC2 instance profile, defining "who" the instance is. It then "assumes" the IAM role, which ultimately gives it any real power.

<https://medium.com/devops-dukes/the-difference-between-an-aws-role-and-an-instance-profile-ae81abd700d#:~:text=Roles%20are%20designed%20to%20be,instance%20profile%20represents%20EC2%20instances.>

upvoted 37 times

 **dave0808** 3 months, 4 weeks ago

A

it is! beautifully explained

upvoted 6 times

 **SlimeMould** Highly Voted 7 months, 3 weeks ago

A is ok

upvoted 8 times

 **kuman** 5 months, 3 weeks ago

Agree A. For B, since both resources are in the same account, trust relationship policy is not required.

upvoted 9 times

 **bubai01** Most Recent 2 months, 2 weeks ago

B.

Roles for EC2 will have two part a. Permission to carry out the activity , which is the first part of the sentence(policy to access Dynamodb) b. Trust policy which defines who can assume the role .

upvoted 1 times

 **syu31svc** 3 months ago

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html>:

"Amazon EC2 uses an instance profile as a container for an IAM role"

A is the answer

upvoted 1 times

 **KK_uniq** 3 months, 1 week ago

A for sure

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=A. Create an IAM role with the appropriate policy to allow access to the DynamoDB table. Create an instance profile to assign this IAM role to the EC2 instance.

upvoted 1 times

 **ASAWS** 6 months, 2 weeks ago

I would say Assumed role is a least privilege access rather than full time role See <https://aws.amazon.com/blogs/security/how-to-use-trust-policies-with-iam-roles/>

Recommendation: You should make extensive use of temporary IAM roles rather than permanent credentials such as IAM users. For more information review this page: https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_temp.html

upvoted 4 times

✉ **dataguy1984** 6 months ago

yes i am leaning towards B due to "allow least privilege access" as B would only let the user have the privileges listed as part of assume the role.

upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAAAAAAAA

upvoted 5 times

✉ **venh123** 7 months ago

A is correct.

upvoted 1 times

✉ **DarthYoda** 7 months, 2 weeks ago

A it is

upvoted 1 times

✉ **bangamut** 7 months, 3 weeks ago

A is correct.

upvoted 1 times

✉ **CloudK** 7 months, 3 weeks ago

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_use_switch-role-ec2-instance-profiles.html

A is ok

upvoted 2 times

✉ **aguy9** 7 months ago

The link CloudK posted states that when an IAM role is created and instance profile is created automatically. This confused me because answer A is asking to create an IAM role and an instance profile separately. However, I found in the below link that if you use the AWS CLI, then you have to create the instance profile and IAM role separately: "If you use the AWS CLI, API, or an AWS SDK to create a role, you create the role and instance profile as separate actions" <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html>

upvoted 5 times

Question #228

A solutions architect is designing a solution that involves orchestrating a series of Amazon Elastic Container Service (Amazon ECS) task types running on

Amazon EC2 instances that are part of an ECS cluster. The output and state data for all tasks needs to be stored. The amount of data output by each task is approximately 10 MB, and there could be hundreds of tasks running at a time. The system should be optimized for high-frequency reading and writing. As old outputs are archived and deleted, the storage size is not expected to exceed 1 TB.

Which storage solution should the solutions architect recommend?

- A. An Amazon DynamoDB table accessible by all ECS cluster instances.
- B. An Amazon Elastic File System (Amazon EFS) with Provisioned Throughput mode.
- C. An Amazon Elastic File System (Amazon EFS) file system with Bursting Throughput mode.
- D. An Amazon Elastic Block Store (Amazon EBS) volume mounted to the ECS cluster instances.

Correct Answer: C

✉  **sk4tto** Highly Voted 7 months, 1 week ago

Agree with B.

With the Bursting Throughput mode, which is the default mode, the amount of throughput scales as your file system grows. So the more you store, the more throughput is available to you. Using the bursting throughput mode does not incur any additional charges and you have a baseline rate of 50 KB/s per GB of throughput that comes included with the price you pay for your EFS standard storage.

Provisioned Throughput allows you to burst above your allocated allowance, which is based upon your file system size. So if your file system was relatively small but the use case for your file system required a high throughput rate, then the default bursting throughput options may not be able to process your request quickly enough. In this instance, you would need to use provisioned throughput. However, this option does incur additional charges where you will need to pay for any bursting above the default capacity allowed from the standard bursting throughput.

upvoted 47 times

✉  **mahdeo01** 1 week, 6 days ago

Beautiful explanation !!!

(one point to add in case of AWS. always remember - "Provisioned" means - GUARANTEED !!!)

upvoted 1 times

✉  **fww** 4 months, 4 weeks ago

thanks for explanation, easy to understand.

upvoted 5 times

✉  **_Drj_** Highly Voted 7 months ago

Keywords:

data for all tasks needs to be stored - meaning EFS
by each task is approximately 10 MB - meaning storage could get really low once archived
optimized for high-frequency reading and writing
not expected to exceed 1 TB - this one is begging not to chose Bursting mode

"There are two throughput modes to choose from for your file system, Bursting Throughput and Provisioned Throughput. With Bursting Throughput mode, throughput on Amazon EFS scales as the size of your file system in the standard storage class grows. For more information about EFS storage classes, see EFS storage classes. With Provisioned Throughput mode, you can instantly provision the throughput of your file system (in MiB/s) independent of the amount of data stored."

High Throughput regardless of storage which can be provided only by B

Reference:

<https://docs.aws.amazon.com/efs/latest/ug/performance.html>

upvoted 19 times

✉  **dave0808** 4 months ago

yes B is the way

upvoted 1 times

✉  **Ialia** Most Recent 3 weeks, 1 day ago

I think B

Amazon EFS Provisioned Throughput is available for applications with a high throughput to storage (MB/s per TB) ratio. For example, customers using Amazon EFS for development tools, web serving or content management applications, where the amount of data in their file system is low relative to throughput demands, are able to instantly get the high levels of throughput their applications require

<https://www.amazonaws.cn/en/efs/faq/>

upvoted 1 times

✉  **borisrabin03** 1 month, 4 weeks ago

The answer is c
throughput for file operations scales with your file system usage. Depending on the size of your data you get a certain number of burst credits, which allow you to get higher throughput for a limited time. For example, a 1-TiB file system runs continuously at a throughput of 50 MiB/second and is allowed to burst to 100 MiB/s for 12 hours each day.

upvoted 1 times

 **NSF2** 2 months, 3 weeks ago

The answer is C as per below.

Q. What throughput can I drive against files stored in the EFS Standard-IA or EFS One Zone-IA storage class?

The throughput you can drive against an Amazon EFS file system scales linearly with the amount of data stored on the EFS Standard or EFS One Zone storage classes. All Amazon EFS file systems, regardless of size, can burst to 100 MiB/s of throughput. File systems with more than 1 TiB of data stored on EFS Standard or EFS One Zone storage classes can burst to 100 MiB/s per TiB of data stored on EFS Standard or EFS One Zone storage classes. If you require higher amounts of throughput to EFS Standard-IA or EFS One Zone-IA storage classes than your file system allows, use Amazon EFS Provisioned Throughput.

<https://aws.amazon.com/efs/faq/>

upvoted 1 times

 **lamrandom** 3 weeks, 3 days ago

Size (1TB=1000GB) is not enough to cover throughput requirement: @50 KB/s per GB of throughput in burst mode --> $50*1000GB = 50000KB/s = 50MB/s$ while you have to manage an "amount of data output by each task is approximately 10 MB, and there could be hundreds of tasks running at a time" --> $10MB * 200 ("hundreds") = 2000MB$ which looks like another order of magnitude... ok you can burst, but doesn't look stable. There are no cost restriction mentioned therefore B is the way to go, provisioned throughput (BTW just the fact that you have an idea of the throughput should suggest to go provisioned).

upvoted 1 times

 **Abdullah777** 2 months, 4 weeks ago

"The system should be optimized for high-frequency reading and writing"
we cant make the throughput based on the size here where we have small size essentially. Ans is B.

upvoted 2 times

 **syu31svc** 3 months ago

I would take B

D is out as EBS is of lower performance than EFS

<https://docs.aws.amazon.com/efs/latest/ug/performance.html>:

Throughput scale for EFS is higher than EBS

A is eliminated since DynamoDB is not used for such a scenario

"optimized for high-frequency reading and writing" -> take advantage of AWS capabilities

<https://aws.amazon.com/efs/faq/>:

"Provisioned Throughput enables Amazon EFS customers to provision their file system's throughput independent of the amount of data stored, optimizing their file system throughput performance to match their application's needs."

upvoted 3 times

 **KK_uniq** 3 months, 1 week ago

Provisioned throughput

B for sure

upvoted 2 times

 **Ajits** 3 months, 1 week ago

Ans is A as Amazon DynamoDB Auto Scaling enables a table or a global secondary index to increase its provisioned read and write capacity to handle sudden increases in traffic, without throttling.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. An Amazon Elastic File System (Amazon EFS) with Provisioned Throughput mode.

upvoted 2 times

 **ismai1** 4 months, 1 week ago

i go for C

<https://aws.amazon.com/premiumsupport/knowledge-center/efs-burst-credits/#:~:text=With%20Bursting%20Throughput%20mode%2C%20throughput,more%20information%2C%20see%20Throughput%20Modes.>

upvoted 1 times

 **ismai1** 4 months, 1 week ago

sorry B not C

upvoted 3 times

 **Sam82** 4 months, 2 weeks ago

C is the correct answer

<https://aws.amazon.com/premiumsupport/knowledge-center/efs-burst-credits/>

upvoted 1 times

 **NSF** 4 months, 2 weeks ago

Why not D

For EC2 tasks, use data volumes in the following common examples:

To provide persistent data volumes for use with a container

To define an empty, nonpersistent data volume and mount it on multiple containers

To share defined data volumes at different locations on different containers on the same container instance

To provide a data volume to your task that is managed by a third-party volume driver

upvoted 2 times

 **LordHammer** 4 months, 4 weeks ago

on some of the links here that people posted B it says they recommend Bursting by default or C even. See below First link but yet B seems correct, very confused on this one.

Using the Right Throughput Mode

By default, we recommend that you run your application in the Bursting Throughput mode. If you experience performance issues, check the BurstCreditBalance CloudWatch metric. If the value of the BurstCreditBalance metric is either zero or steadily decreasing, Provisioned Throughput is right for your application.

In some cases, your file system might run in Provisioned Throughput mode with no performance issues. However, at the same time, your BurstCreditBalance continuously increases for long periods of normal operations. In such a case, consider decreasing the amount of provisioned throughput to reduce costs.

upvoted 1 times

 **Khandakar420** 5 months, 1 week ago

Its B because in

Provisioned Throughput = you can instantly provision the throughput of your file system (in MiB/s) independent of the amount of data stored.

Bursting Throughput= Amazon EFS scales as the size of your file system in the standard storage class grows.

In question they mentioned As old outputs are archived and deleted, the storage size is not expected to exceed 1 TB.

upvoted 4 times

 **shetoshandas** 5 months, 2 weeks ago

i tend to use choose "C" ,because of the expectation of 1TB , normally Amazon EFS supports highly parallelized workloads frequency and no need to select "B"

upvoted 1 times

 **kayang** 5 months, 4 weeks ago

Performance vs Burst:

<https://aws.amazon.com/premiumsupport/knowledge-center/efs-burst-credits/>

Ans should be C. As the data volume less than 2 TB.

Provisioned comes with a charge.

So, I will go with C.

upvoted 3 times

 **dzenadcu** 6 months, 2 weeks ago

I would say it's A because it's about saving " The output and state data..."

Dynamo DB is used to save the state ...

upvoted 1 times

Question #229

Topic 1

An online photo application lets users upload photos and perform image editing operations. The application offers two classes of service: free and paid. Photos submitted by paid users are processed before those submitted by free users. Photos are uploaded to Amazon S3 and the job information is sent to Amazon SQS.

Which configuration should a solutions architect recommend?

- A. Use one SQS FIFO queue. Assign a higher priority to the paid photos so they are processed first.
- B. Use two SQS FIFO queues: one for paid and one for free. Set the free queue to use short polling and the paid queue to use long polling.
- C. Use two SQS standard queues: one for paid and one for free. Configure Amazon EC2 instances to prioritize polling for the paid queue over the free queue.
- D. Use one SQS standard queue. Set the visibility timeout of the paid photos to zero. Configure Amazon EC2 instances to prioritize visibility settings so paid photos are processed first.

Correct Answer: A

✉  **DarthYoda** Highly Voted 7 months, 2 weeks ago

C, check this out:

<https://acloud.guru/forums/guru-of-the-week/discussion/-L7Be8rOao3lnQxdQcXj/>

upvoted 18 times

✉  **FeatheredandDeadly** Highly Voted 7 months, 3 weeks ago

Answer is C.

<https://aws.amazon.com/sqs/features/>

upvoted 15 times

✉  **noahsark** 3 months, 4 weeks ago

agree - as per AWS -

Priority: Use separate queues to provide prioritization of work.

upvoted 1 times

✉  **Deyemzy** Most Recent 5 days, 10 hours ago

Answer is C!!!

upvoted 1 times

✉  **tinyshare** 1 week, 5 days ago

A is the first one to be excluded. One FIFO has no way to prioritize any tasks, because it can only process by the time of arrival.

upvoted 2 times

✉  **DeepakRevankar** 2 weeks, 3 days ago

C it is:

Using Amazon SQS with other AWS infrastructure web services

Priority: Use separate queues to provide prioritization of work.

upvoted 1 times

✉  **Adduu** 3 weeks ago

C.

FIFO will not be able to segregate between high and low. It is used for in order

upvoted 1 times

✉  **inverse70** 3 weeks, 6 days ago

FIFO is first in first out, how can you have a priority?

ANS = C

upvoted 1 times

✉  **Toks2021** 1 month, 1 week ago

Could A be right? <https://awsmedia.s3.amazonaws.com/pdf/queues.pdf>

upvoted 1 times

✉  **ansh18061986** 2 months, 1 week ago

Correct answer is 'C'. Not sure is there any way to setup the priority on each photos which to process first and which later Option 'C' looks correct.

upvoted 1 times

✉  **Abdullah777** 2 months, 4 weeks ago

what I got that SQS doesn't support prioritizing. you need to use multiple sqs and set the priority in the instance that make the pulling. here is C the best.

upvoted 3 times

✉ **leliodesouza** 2 months, 4 weeks ago

The answer should be C.

upvoted 1 times

✉ **syu31svc** 3 months ago

FIFO already determines the order of the queue so A and B are wrong

Between C and D, I would take C

<https://aws.amazon.com/sqs/features/>:

"Priority: Use separate queues to provide prioritization of work."

upvoted 3 times

✉ **AI** 3 months, 1 week ago

AWS documentation says this : <https://aws.amazon.com/sqs/features/>

Priority: Use separate queues to provide prioritization of work.

upvoted 1 times

✉ **KK_uniq** 3 months, 1 week ago

C for sure

upvoted 1 times

✉ **NSF** 4 months ago

In my opinion, you cant achieve what is required by implementing FIFO as it is still in the same queue but sequentially lined as they arrive. Certainly there must be two queues with one should have priority over other, which leaves us with C and D.

But visibility time out is not relevant here therefore

The answer must be C.

upvoted 1 times

✉ **AWSGeeeeeeK** 6 months, 1 week ago

C is correct

upvoted 1 times

✉ **bleble00001** 6 months, 2 weeks ago

According to <https://aws.amazon.com/sqs/features/>, "Priority: Use separate queues to provide prioritization of work". So we need multiple queues. The person uploaded first should get the result first. Hence it should be FIFO. That marks B as the answer.

Also, refer to <https://stackoverflow.com/questions/57399129/how-to-direct-the-same-amazon-s3-events-into-several-different-sqs-queues>. This explains a similar use case. Here we can achieve the same with two folders in a single S3 bucket, one for PAID users and the other for FREE users.

upvoted 2 times

✉ **liquen14** 4 months, 2 weeks ago

You don't need FIFO here for anything, nowhere says "The person uploaded first should get the result first" not to speak about the pretty absurd "Set the free queue to use short polling and the paid queue to use long polling" which has little to do with any kind of prioritization

upvoted 2 times

Question #230

A company wants to migrate its MySQL database from on premises to AWS. The company recently experienced a database outage that significantly impacted the business. To ensure this does not happen again, the company wants a reliable database solution on AWS that minimizes data loss and stores every transaction on at least two nodes.

Which solution meets these requirements?

- A. Create an Amazon RDS DB instance with synchronous replication to three nodes in three Availability Zones.
- B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously replicate the data.
- C. Create an Amazon RDS MySQL DB instance and then create a read replica in a separate AWS Region that synchronously replicates the data.
- D. Create an Amazon EC2 instance with a MySQL engine installed that triggers an AWS Lambda function to synchronously replicate the data to an Amazon RDS MySQL DB instance.

Correct Answer: B

 **sadhou2004** Highly Voted 7 months, 3 weeks ago

Correct answer : B

upvoted 19 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. Sounds wrong, you'll have to enable Multi-AZ deployment.
- B. Sounds about right.
- C. Read replicas don't help or make the DB reliable.
- D. Nop, EC2 is not recommended.

upvoted 12 times

 **andras** Most Recent 2 months, 2 weeks ago

B does not protect against a regional outage.

Read replicas could be promoted to "master" in the other region in case of a regional outage.

It's C

upvoted 1 times

 **patriktre** 3 weeks, 6 days ago

ans C is talking about synchronous replication to read replicas, but read replicas uses asynchronous replication. correct ans should be B
upvoted 3 times

 **ssSsEclipse** 2 months ago

the question is about database outage, not regional outage, so it is not the thing we should take care of.

With Multi-AZ enabled, failover to a standby instance is fully automatic by AWS, while with read replicas, you will need to manually promote to master, so I think Multi-AZ is more suitable in this case

upvoted 2 times

 **Vizz5585** 23 hours, 56 minutes ago

Moreover the question states "stores every transaction on at least two nodes." which is satisfied by B.

upvoted 1 times

 **syu31svc** 3 months ago

100% is B

upvoted 2 times

 **KK_uniq** 3 months, 1 week ago

B for sure

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously replicate the data.

upvoted 2 times

 **bleble00001** 6 months, 2 weeks ago

"To ensure database outage does not happen again.." ~> If all the synchronous replicas are in a single region, the said goal cannot be achieved.
Why? What if the entire region goes down?

upvoted 1 times

 **AVINASH_AWS** 6 months ago

what if entire universe sink in different galaxy .. don't over assume.

upvoted 9 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBB

upvoted 8 times

 **venh123** 6 months, 4 weeks ago

B is correct

upvoted 1 times

 **aguy9** 7 months ago

Answer is B. RDS Multi AZ synchronously replicates the data

upvoted 1 times

 **billkeeth** 7 months, 1 week ago

Correct answer is B

upvoted 1 times

 **DarthYoda** 7 months, 2 weeks ago

AWS confusing you by asking for at least 2 nodes and providing 3 nodes as an option so you can think it is the correct answer lol
answer is definitely B

upvoted 4 times

 **mustafa0099** 7 months, 2 weeks ago

Correct answer : B

upvoted 2 times

 **jy00271070** 7 months, 3 weeks ago

The answer should be B, RDS with Multi-AZ do the data replication and failover for you.

upvoted 4 times

 **Aldrin26** 7 months, 3 weeks ago

Answer is B

upvoted 1 times

Question #231

Topic 1

A company stores user data in AWS. The data is used continuously with peak usage during business hours. Access patterns vary, with some data not being used for months at a time. A solutions architect must choose a cost-effective solution that maintains the highest level of durability while maintaining high availability.

Which storage solution meets these requirements?

- A. Amazon S3 Standard
- B. Amazon S3 Intelligent-Tiering
- C. Amazon S3 Glacier Deep Archive
- D. Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA)

Correct Answer: B

 **anpt** Highly Voted 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBB

upvoted 9 times

 **SlimeMould** Highly Voted 7 months, 3 weeks ago

B is ok

upvoted 7 times

 **syu31svc** Most Recent 3 months ago

"Access patterns vary"

101% is B

upvoted 5 times

 **KK_uniq** 3 months, 1 week ago

B for sure

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Amazon S3 Intelligent-Tiering

upvoted 1 times

 **luch00204** 6 months, 2 weeks ago

B FTW :)

upvoted 1 times

 **venh123** 6 months, 4 weeks ago

Definitely B. Clue- "access patterns vary"

upvoted 2 times

 **aguy9** 7 months ago

Yep B is the answer. Intelligent tiering moves data between storage classes based on its current degree of usage.

upvoted 3 times

 **h20** 7 months, 2 weeks ago

B FOR SURE

upvoted 1 times

 **oud** 7 months, 2 weeks ago

A. because it provide high availability.

upvoted 1 times

 **ismai1** 4 months, 1 week ago

A solutions architect must choose a cost-effective solution, so B

upvoted 1 times

 **ThePunisher77** 7 months ago

Read the question carefully. You don't need HA for data that is not accessed in months.

upvoted 2 times

 **DarthYoda** 7 months, 2 weeks ago

B it is

upvoted 1 times

 **CloudK** 7 months, 2 weeks ago

B is correct.

upvoted 1 times

 **sadhou2004** 7 months, 3 weeks ago

yes It's B

upvoted 2 times

Question #232

Topic 1

A company receives inconsistent service from its data center provider because the company is headquartered in an area affected by natural disasters. The company is not ready to fully migrate to the AWS Cloud, but it wants a failure environment on AWS in case the on-premises data center fails.

The company runs web servers that connect to external vendors. The data available on AWS and on premises must be uniform.

Which solution should a solutions architect recommend that has the LEAST amount of downtime?

- A. Configure an Amazon Route 53 failover record. Run application servers on Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group. Set up AWS Storage Gateway with stored volumes to back up data to Amazon S3.
- B. Configure an Amazon Route 53 failover record. Execute an AWS CloudFormation template from a script to create Amazon EC2 instances behind an Application Load Balancer. Set up AWS Storage Gateway with stored volumes to back up data to Amazon S3.
- C. Configure an Amazon Route 53 failover record. Set up an AWS Direct Connect connection between a VPC and the data center. Run application servers on Amazon EC2 in an Auto Scaling group. Run an AWS Lambda function to execute an AWS CloudFormation template to create an Application Load Balancer.
- D. Configure an Amazon Route 53 failover record. Run an AWS Lambda function to execute an AWS CloudFormation template to launch two Amazon EC2 instances. Set up AWS Storage Gateway with stored volumes to back up data to Amazon S3. Set up an AWS Direct Connect connection between a VPC and the data center.

Correct Answer: A

 **CloudK** Highly Voted 7 months, 2 weeks ago

A. Configure an Amazon Route 53 failover record. Run application servers on Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group. Set up AWS Storage Gateway with stored volumes to back up data to Amazon S3.

upvoted 17 times

 **grad123** 1 week, 3 days ago

Source for the answer?

upvoted 2 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

A. Sounds like a good option, except it will take longer than B.

B. Could work with a CloudFormation template but why only an Application Load Balancer, where is the Auto Scaling group? But it's being executed from a script... not sure if that sounds right, since if the data center fails... you won't be able to execute the script.

C. Sounds a lot of work just to create an Application Load Balancer. And we also need to backup volumes.

D. A lot of things to setup, Direct Connect will take a long time already.

A sounds about right.

upvoted 15 times

 **RakSam** 7 months ago

In my opinion, it should be D as it has a Direct Connect line. The Q says LEAST amount of downtime, which means that whenever there is any downtime it should last of minimum amount of time. in case of natural disaster, when there is no internet connection to the datacenter, will not the Direct Connect line help in maintaining the backup process from on-prem to AWS? Open for suggestions.

upvoted 12 times

 **Spike2020** 8 hours, 51 minutes ago

even though Direct connect takes a while to setup, once it is setup you do not have to do much anymore. It is not a reason for not setting it up

upvoted 1 times

 **CCNPWILL** 4 months, 1 week ago

AWS Direct Connect takes a long time to actually set up. Direct connect is NOT what they need for the LEAST amount of downtime. go study.

upvoted 9 times

 **Iamrandom** 3 weeks, 3 days ago

BONK! To ignorance jail.

upvoted 1 times

 **Negus007** 3 weeks, 4 days ago

I love CCNPWILL

upvoted 2 times

 **Hypercuber** 6 months ago

If the on-prem solution is not available, what will Direct Connect server for then?

upvoted 5 times

 **tinyshare** Most Recent 3 days, 22 hours ago

You need autoscaling group, not cloudFormation, so B and D are out.
You need storage gateway, not direct connect, so C is out.
Cloudformation is used to launch resources from a template, not for autoscaling.
upvoted 1 times

 **lovelrone** 1 month, 4 weeks ago

Currently, the company has a one-way path to the internet while they use Direct connect they actually don't rely on ISP. When some downtime of the internet is happening the direct-connect will still alive. because of this reason D is the least amount of downtime
upvoted 2 times

 **borisrabin03** 1 month, 4 weeks ago

A for sure , no need for direct connect c and d out. b does not mention auto scaling. so its A
upvoted 1 times

 **SandyIndia** 2 months, 1 week ago

Ans is D: AWS DX to DC with Storage GW.
solutions architect recommend solution Option A. don't have any solution of how to connect to AWS from DC to AWS. Only 2 ways to connect AWS from to DC. Internet VPN GW or DX.
upvoted 3 times

 **bubai01** 2 months, 2 weeks ago

for route 53 to work with hybrid environment it should have a connectivity with on-premises either through VPN of DX . A&B doesn't mentioned anything about the connectivity with on-Premises. D is correct as C doesn't have storage gateway.
upvoted 1 times

 **Abdullah777** 2 months, 3 weeks ago

not sure but I see B with the cloud formation will speed up the creation of the infrastructure. Why not B? I dont like to be against the all opinions.
upvoted 1 times

question asked for LEAST amount of downtime.

A = infrastructure already created.

B = infrastructure will be created, may take additional few minutes.

my 2 cents.

upvoted 7 times

 **syu31svc** 3 months ago

"not ready to fully migrate to the AWS Cloud" -> C and D are wrong since AWS Direct Connect connection would mean migration

Between and A and B, I'd take A since there is load balancing with auto scaling to set up a "failure environment" in AWS; CloudFormation from a script takes time and in the event of an on-premises failure, resources would fail to provision

upvoted 5 times

 **KK_uniq** 3 months, 1 week ago

Lets go with A

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=A --

upvoted 1 times

 **EarBrillantes061816** 4 months, 1 week ago

Route 53 for multi region fail over. Load balancers not applicable for multi region. Storage gateway for AWS and on premise back sync. A is the best option
upvoted 2 times

 **CountryGent** 4 months, 2 weeks ago

D look far more complete a solution which includes the connectivity piece back to the DC.

upvoted 4 times

 **CCNPWILL** 4 months, 1 week ago

Direct takes too long to actually set up. go study more.

upvoted 2 times

 **softarts** 4 months, 3 weeks ago

D is what we need, to sync data, we need DX and storage gateway, to least downtime, we cloudfomation to quick setup, for fail-over we need route 53
upvoted 4 times

 **mb0812** 5 months, 1 week ago

A, rest 3 are using cloud formation

upvoted 2 times

 **Hungdv** 6 months, 1 week ago

I think B

upvoted 1 times

 **HiAws** 6 months, 1 week ago

A and B do not have a connection with on-prem, you need DX or other connectivity to offload the traffic and sync, hence answers must be C or D, D looks more suitable

upvoted 3 times

Question #233

Topic 1

A company has three VPCs named Development, Testing, and Production in the us-east-1 Region. The three VPCs need to be connected to an on-premises data center and are designed to be separate to maintain security and prevent any resource sharing. A solutions architect needs to find a scalable and secure solution.

What should the solutions architect recommend?

- A. Create an AWS Direct Connect connection and a VPN connection for each VPC to connect back to the data center.
- B. Create VPC peers from all the VPCs to the Production VPC. Use an AWS Direct Connect connection from the Production VPC back to the data center.
- C. Connect VPN connections from all the VPCs to a VPN in the Production VPC. Use a VPN connection from the Production VPC back to the data center.
- D. Create a new VPC called Network. Within the Network VPC, create an AWS Transit Gateway with an AWS Direct Connect connection back to the data center. Attach all the other VPCs to the Network VPC.

Correct Answer: B

 **VinceL88** Highly Voted 7 months, 2 weeks ago

B, C, and D enable resources sharing between VPCs, therefore none of them can be the correct answer. The elimination, A is the answer. Also VPN on top of DX to provide encryption.

upvoted 33 times

 **crazyaboutazure** 2 weeks, 2 days ago

Answer should be A. Transit gateway can be used to isolate resources across vpc by connecting it to direct connect and is a very scalable way of doing things but in option presented its mentioned that transit gateway is created within VPC which is incorrect as in the route table attached to Transit Gateway the VPCs can be attached so VPCs are attached within Transit gateway kind of not other way around. Nice question!!!!

upvoted 2 times

 **sadhou2004** 5 months, 2 weeks ago

A is wrong : A provides redundancy not scalability

upvoted 1 times

 **d719273** 1 month ago

Why would it not provide scalability?

You could, when needed, add a VPN for any new VPC.

Scalable, isn't it?

upvoted 1 times

 **d719273** 1 month ago

For reference:

<https://www.youtube.com/watch?v=dhpTTT6V1So>

upvoted 1 times

 **woonsi** Highly Voted 7 months, 2 weeks ago

Ans : A sure Check link

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect-vpn.html>

upvoted 21 times

 **bustedd** 5 months, 2 weeks ago

Thank you for the link.

Ans A

upvoted 1 times

 **Spike2020** Most Recent 8 hours, 37 minutes ago

D is the only viable option. A says direct connect for each VPC! That is a joke. nobody does DX per VPC. B says VPC peering but you are not supposed to connect the VPCs plus AWS does not support transit routing. C is the same as B but with VPN. so again D

upvoted 1 times

 **tinyshare** 3 days, 22 hours ago

An ambiguous word game.

Actually it means: one AWS direct connect, and three VPNs (one VPN for each VPC), although it can also be interpreted as one direct connect AND one VPN for each VPC (three DC and three VPN)

upvoted 1 times

 **jkwek** 1 month, 2 weeks ago

Answer is A.

Correction to my previous answer D. Need prevent resource sharing.

upvoted 1 times

✉ **arkandi** 1 month, 3 weeks ago

Only possible option A
All other options don't work as there is no transitivity in VPC peering

upvoted 1 times

✉ **borisrabin03** 1 month, 4 weeks ago

The correct answer is D
upvoted 3 times

✉ **awsrookie** 2 months ago

Answer A

A vs D

A

No Resource Sharing : OK
Secure : OK (VPN)
Scalable : OK. but not perfect. Adding a new VPC does not affect the existing VPC.

D

No Resource Sharing : OK. But not perfect. It's possible if transit gateway routing is configured.
Secure : NOT OK. No Secure connection
Scalable : OK

upvoted 3 times

✉ **jkwek** 2 months, 1 week ago

Answer is D:
Reason is the keywords "scalable and secure". The answer A is not scalable and does not show much expertise.
upvoted 1 times

✉ **jkwek** 2 months, 1 week ago

Answer is D:
Reason as below:
url explained very well:
<https://aws.amazon.com/blogs/networking-and-content-delivery/scaling-vpn-throughput-using-aws-transit-gateway/>

With AWS Transit Gateway, you can simplify the connectivity between multiple VPCs and also connect to any VPC attached to AWS Transit Gateway with a single VPN connection.

upvoted 3 times

✉ **jkwek** 2 months, 1 week ago

Answer is D. Reason as below:
<https://aws.amazon.com/transit-gateway/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

Easier connectivity

AWS Transit Gateway acts as a cloud router to simplify your network architecture. As your network grows, the complexity of managing incremental connections doesn't slow you down. When building global applications, you can connect AWS Transit Gateways using inter-Region peering.

upvoted 1 times

✉ **ansh18061986** 2 months, 1 week ago

Would go with 'A', Question states that "Prevent any resource sharing" so VPC peering should be out of picture and also, each environment has its own security limitations / group.

upvoted 2 times

✉ **Abdullah777** 2 months, 3 weeks ago

"You can create additional route tables for your transit gateway. This enables you to isolate subnets of attachments. Each attachment can be associated with one route table. An attachment can propagate its routes to one or more route tables."

You can create a blackhole route in your transit gateway route table that drops traffic that matches the route."
<https://docs.aws.amazon.com/vpc/latest/tgw/how-transit-gateways-work.html>

upvoted 3 times

✉ **Abdullah777** 2 months, 3 weeks ago

"Example: Isolated VPCs

PDF

RSS

You can configure your transit gateway as multiple isolated routers. This is similar to using multiple transit gateways, but provides more flexibility in cases where the routes and attachments might change. In this scenario, each isolated router has a single route table. All attachments associated with an isolated router propagate and associate with its route table. Attachments associated with one isolated router can route packets to each other, but cannot route packets to or receive packets from the attachments for another isolated router."

<https://docs.aws.amazon.com/vpc/latest/tgw/transit-gateway-isolated.html>

it is D no question in that.

upvoted 4 times

✉ **learningforever** 2 months, 1 week ago

D is wrong.

What you say is true. The ideal solution here should be to attach those 3VPCs to 3 Different routing tables in the Transit Gateway. However, at this moment in time, you can only attach one Direct Connect to a Transit VIF so you will need 3 Direct Connects to serve those 3 routing tables. This is a limitation that AWS is working to resolve.

D is wrong because:

"Create a new VPC called Network. Within the Network VPC, create an AWS Transit Gateway with an AWS Direct Connect connection back to the data center. Attach all the other VPCs to the Network VPC."

- You don't need to attach all the VPCs to a central network VPC, that's not how it works. In any case, you'd need to attach all 3 VPCs to a Routing table in the Transit Gateway.

upvoted 4 times

 **Abdullah777** 2 months, 3 weeks ago

" and are designed to be separate to maintain security and prevent any resource sharing" guys who speak about security. the security here is just for operating the vpcs so no violation between them, not between the vpc and the on-prim. going with D.

upvoted 2 times

 **syu31svc** 3 months ago

I would take A

"prevent any resource sharing"

B is wrong since peering would mean sharing

C is wrong since VPN is connecting AWS to on-prem not VPC to VPC

D is wrong for sure as how do you simply attach VPC to VPC?

upvoted 3 times

 **GuxMAN** 2 months, 2 weeks ago

With Transit Gateway (TG) and its route table. Additionally, you can configure your TG to function as a centralized router, therefore you can control how traffic is routed among all VPC's (and you can select a secure connection with VPN over this too).

upvoted 1 times

 **GuxMAN** 2 months, 2 weeks ago

But, we can't attach a TG inside a VPC.

upvoted 1 times

 **waqas** 2 months, 3 weeks ago

A is good for DR/Failover or if require Encryption over the link.

upvoted 1 times

 **dmscounterera** 3 months, 2 weeks ago

D

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect-aws-transit-gateway-vpn.html>

upvoted 2 times

 **d719273** 1 month ago

Well, I would agree with you if the answer was "Create a new VPC called Network. Within the Network VPC, create an AWS Transit Gateway with an AWS Direct Connect with IPSec VPN connection back to the data center. Attach all the other VPCs to the Network VPC"

But since no VPN is explicitly involved, then it lacks security which is the requirement.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=D. Create a new VPC called Network. Within the Network VPC, create an AWS Transit Gateway with an AWS Direct Connect connection back to the data center. Attach all the other VPCs to the Network VPC.

upvoted 1 times

Question #234

Topic 1

What should a solutions architect do to ensure that all objects uploaded to an Amazon S3 bucket are encrypted?

- A. Update the bucket policy to deny if the PutObject does not have an s3:x-amz-acl header set.
- B. Update the bucket policy to deny if the PutObject does not have an s3:x-amz-acl header set to private.
- C. Update the bucket policy to deny if the PutObject does not have an aws:SecureTransport header set to true.
- D. Update the bucket policy to deny if the PutObject does not have an x-amz-server-side-encryption header set.

Correct Answer: D

✉  **jy00271070**  7 months, 3 weeks ago

D is ok:

<https://aws.amazon.com/blogs/security/how-to-prevent-uploads-of-unencrypted-objects-to-amazon-s3/#:~:text=Solution%20overview,console%2C%20or%20SDK.&text=To%20encrypt%20an%20object%20at,S3%2C%20or%20SSE%20MS>.

upvoted 9 times

✉  **anpt**  6 months, 3 weeks ago

DDDDDDDDDDDDDD

upvoted 8 times

✉  **syu31svc**  3 months ago

D; purely based on "x-amz-server-side-encryption" in accordance to the qn on encryption

upvoted 2 times

✉  **KK_uniq** 3 months, 1 week ago

D for sure "server-side-encryption"

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=D. Update the bucket policy to deny if the PutObject does not have an x-amz-server-side-encryption header set.

upvoted 1 times

✉  **Atanu_M** 4 months, 3 weeks ago

Ans. D - <https://aws.amazon.com/blogs/security/how-to-prevent-uploads-of-unencrypted-objects-to-amazon-s3/>

upvoted 2 times

✉  **Atanu_M** 4 months, 4 weeks ago

AWS VPN is comprised of two services: AWS Site-to-Site VPN and AWS Client VPN. AWS Site-to-Site VPN enables you to securely connect your on-premises network or branch office site to your Amazon Virtual Private Cloud (Amazon VPC). AWS Client VPN enables you to securely connect users to AWS or on-premises networks.

The Answer is D here , as it is talking about connecting two environments.

upvoted 1 times

✉  **Atanu_M** 4 months, 3 weeks ago

Ignore this comment this is for the next question.

upvoted 2 times

✉  **y2kmarkham** 5 months ago

D should be

upvoted 1 times

✉  **massyg** 7 months, 2 weeks ago

It's D

upvoted 1 times

✉  **Sanjeevlsg** 7 months, 2 weeks ago

D.

<https://aws.amazon.com/blogs/security/how-to-prevent-uploads-of-unencrypted-objects-to-amazon-s3/>

upvoted 4 times

✉  **aguy9** 7 months ago

Yep it clearly states D is correct in this link

upvoted 1 times

✉  **bangamut** 7 months, 3 weeks ago

D is correct.

upvoted 1 times

 **sctmp** 7 months, 3 weeks ago

It's D.

upvoted 1 times

 **FeatheredandDeadly** 7 months, 3 weeks ago

D is good.

<https://aws.amazon.com/blogs/security/how-to-prevent-uploads-of-unencrypted-objects-to-amazon-s3/>

upvoted 2 times

 **KK_uniq** 3 months, 1 week ago

Going with D
upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

Answer is D.
upvoted 3 times

 **vikrampruthvis5** 4 months, 3 weeks ago

D

A VPC VPN Connection utilizes IPSec to establish encrypted network connectivity between your intranet and Amazon VPC over the Internet. ***
VPN Connections can be configured in minutes and are a good solution if you have an immediate need, have low to modest bandwidth requirements, and can tolerate the inherent variability in Internet-based connectivity ***. AWS Direct Connect does not involve the Internet; instead, it uses dedicated, private network connections between your intranet and Amazon VPC.

upvoted 3 times

 **Atanu_M** 4 months, 3 weeks ago

A. Incorrect - AWS Client VPN is an AWS managed high availability and scalability service enabling secure software remote access. It provides the option of creating a secure TLS connection between remote clients and your Amazon VPCs, to securely access AWS resources and on-premises over the internet, Refer - <https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-client-vpn.html>
D is correct here AWS site to site VPN is applicable to make the line secure and to allow access to all AWS/Network resources

upvoted 1 times

 **Atanu_M** 4 months, 4 weeks ago

AWS VPN is comprised of two services: AWS Site-to-Site VPN and AWS Client VPN. AWS Site-to-Site VPN enables you to securely connect your on-premises network or branch office site to your Amazon Virtual Private Cloud (Amazon VPC). AWS Client VPN enables you to securely connect users to AWS or on-premises networks.
The Answer is A here , as it is talking about connecting two environments.

upvoted 1 times

 **Elias23** 5 months, 2 weeks ago

D:

AWS Site-to-Site VPN creates a secure connection between your data center or branch office and your AWS cloud resources. For globally distributed applications, the Accelerated Site-to-Site VPN option provides even greater performance by working with AWS Global Accelerator.
upvoted 3 times

 **chronoler** 5 months, 2 weeks ago

key words, "On-premise enviroment to aws" means that you will need a site-to-site VPN. VPN client is for final users/desktops, not for a complete enviroment (all traffic).
upvoted 1 times

 **shetoshandas** 5 months, 2 weeks ago

D is correct , it's connection between a company and AWS not between a single client "Laptop or mobile" ... it can't be A !!
upvoted 2 times

 **AWSGeeeeeeK** 6 months ago

D is correct
A is false becuse they talking about On-prem not individuls users
upvoted 3 times

 **kimalto452** 6 months, 2 weeks ago

AWS VPN is comprised of two services: AWS Site-to-Site VPN and AWS Client VPN. AWS Site-to-Site VPN enables you to securely connect your on-premises network or branch office site to your Amazon Virtual Private Cloud (Amazon VPC). AWS Client VPN enables you to securely connect users to AWS or on-premises networks.

D

upvoted 1 times

Question #236

Topic 1

A company uses Application Load Balancers (ALBs) in different AWS Regions. The ALBs receive inconsistent traffic that can spike and drop throughout the year.

The company's networking team needs to allow the IP addresses of the ALBs in the on-premises firewall to enable connectivity.

Which solution is the MOST scalable with minimal configuration changes?

- A. Write an AWS Lambda script to get the IP addresses of the ALBs in different Regions. Update the on-premises firewall's rule to allow the IP addresses of the ALBs.
- B. Migrate all ALBs in different Regions to the Network Load Balancer (NLBs). Update the on-premises firewall's rule to allow the Elastic IP addresses of all the NLBs.
- C. Launch AWS Global Accelerator. Register the ALBs in different Regions to the accelerator. Update the on-premises firewall's rule to allow static IP addresses associated with the accelerator.
- D. Launch a Network Load Balancer (NLB) in one Region. Register the private IP addresses of the ALBs in different Regions with the NLB. Update the on-premises firewall's rule to allow the Elastic IP address attached to the NLB.

Correct Answer: C

 **jy00271070** Highly Voted  7 months, 3 weeks ago

C is OK

upvoted 13 times

 **dzenadcu** Highly Voted  6 months, 2 weeks ago

C is correct. Use AWS Global Accelerator, get a static IP for whitelisting on firewalls.

No need to replace ALBs with NLBs !

"You can associate these addresses to regional AWS resources or endpoints, such as Application Load Balancers, Network Load Balancers,..."

upvoted 9 times

 **syu31svc** Most Recent  3 months ago

Answer is C

<https://aws.amazon.com/global-accelerator/faqs/>

"Associate the static IP addresses provided by AWS Global Accelerator to regional AWS resources or endpoints, such as Network Load Balancers, Application Load Balancers, EC2 Instances, and Elastic IP addresses"

upvoted 3 times

 **KK_uniq** 3 months, 1 week ago

When you need static IP think GA

upvoted 6 times

 **Yogi** 3 months, 3 weeks ago

Ans=C. Launch AWS Global Accelerator. Register the ALBs in different Regions to the accelerator. Update the on-premises firewall's rule to allow static IP addresses associated with the accelerator.

upvoted 1 times

 **toto059** 4 months, 1 week ago

it is came and answer is C

upvoted 1 times

 **cthunder** 5 months, 1 week ago

I think it is C as Global accelerator will provide a static ip which can be used on the Firewall

"When you create an Application Load Balancer in the AWS Management Console, you can optionally add an accelerator at the same time. Elastic Load Balancing and Global Accelerator work together to transparently add the accelerator for you. The accelerator is created in your account, with the load balancer as an endpoint.### Using an accelerator provides static IP addresses and improves the availability and performance of your applications.###"

upvoted 1 times

 **kishan729** 5 months, 2 weeks ago

I am going with B. The primary requirement is to get connectivity to the ALBs via on-prem firewall. But for IP we need NLB & hence replace that and configure firewall. Why get global accelerator to get a set of IP? - the functionality of global accelerator is way big than that, which is not part of the requirement here. Also NLB will help with performing better with spikes (which is a mention, but not a requirement)

upvoted 2 times

 **chronoler** 5 months, 1 week ago

Because Global Accelerator is regional service load balancing, NLB does AZ load balancing, the question points to solve load balancing between aws regions.

upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

CCCCCCCCCCCCCCCCCC

upvoted 5 times

✉ **aguy9** 7 months ago

I think the answer is C because

By using AWS Global Accelerator, you can:

"Associate the static IP addresses provided by AWS Global Accelerator to regional AWS resources or endpoints, such as Network Load Balancers, Application Load Balancers,"

"Corporate proxies can also whitelist your application's static IP addresses in their firewalls."

<https://aws.amazon.com/global-accelerator/faqs/>

upvoted 3 times

✉ **dph0009** 7 months ago

C is Okay

upvoted 3 times

✉ **spring21** 7 months, 1 week ago

C is correct. AWS Global Accelerator improves the availability and performance of applications designed to reach a global user base. A single accelerator can support multiple Application Load Balancers, Network Load Balancers, and Amazon EC2 instances running in multiple AWS Regions. Global Accelerator provides you with static IP addresses that are advertised globally, supports both TCP and UDP traffic, and routes your user traffic to the optimal AWS Region.

upvoted 3 times

✉ **oud** 7 months, 2 weeks ago

C. I think

upvoted 5 times

✉ **mustafa0099** 7 months, 2 weeks ago

Ans is C

upvoted 5 times

✉ **CloudK** 7 months, 2 weeks ago

C is Ok.

upvoted 3 times

✉ **sctmp** 7 months, 3 weeks ago

A. Requires major configuration changes, adding Lambda functions.

B. We can change to a Network Load Balancer, attach an Elastic IP address, and edit the on-premises firewalls.

C. This could work but we need Network Load Balancers for this to work: <https://aws.amazon.com/global-accelerator/?blogs-global-accelerator.sort-by=item.additionalFields.createdDate&blogs-global-accelerator.sort-order=desc&aws-global-accelerator-wn.sort-by=item.additionalFields.postDateTime&aws-global-accelerator-wn.sort-order=desc>

D. NLB is region based.

My bet goes to B.

upvoted 2 times

✉ **CloudK** 7 months, 2 weeks ago

Global Accelerator work with ALB. <https://aws.amazon.com/global-accelerator>

..

With Global Accelerator, you are provided two global static customer facing IPs to simplify traffic management. On the back end, add or remove your AWS application origins, such as Network Load Balancers, Application Load Balancers, Elastic IPs, and EC2 Instances

..

Exposing your AWS origins, such as Application Load Balancers or EC2 instances, to public internet traffic creates an opportunity for malicious attacks. AWS Global Accelerator decreases the risk of attack by masking your origin behind two static entry points. These entry points are protected by default from Distributed Denial of Service (DDoS) attacks with AWS Shield. AWS Global Accelerator creates a peering connection with your Amazon Virtual Private Cloud using private IP addresses, keeping connections to your internal Application Load Balancer or private EC2 instance off the public internet.

upvoted 19 times

✉ **sctmp** 7 months, 2 weeks ago

You're right, I forgot GA works with ALB and it also provides us IPs.

upvoted 3 times

✉ **sadhou2004** 7 months, 3 weeks ago

A for me : Global accelerator doesn't provide scalability as you have to register new ALBs each time

upvoted 1 times

✉ **kuman** 5 months, 3 weeks ago

C is correct as it requires minimal config

upvoted 2 times

Question #237

Topic 1

A company runs a high performance computing (HPC) workload on AWS. The workload required low-latency network performance and high network throughput with tightly coupled node-to-node communication. The Amazon EC2 instances are properly sized for compute and storage capacity, and are launched using default options.

What should a solutions architect propose to improve the performance of the workload?

- A. Choose a cluster placement group while launching Amazon EC2 instances.
- B. Choose dedicated instance tenancy while launching Amazon EC2 instances.
- C. Choose an Elastic Inference accelerator while launching Amazon EC2 instances.
- D. Choose the required capacity reservation while launching Amazon EC2 instances.

Correct Answer: A

 **CloudK** Highly Voted 7 months, 2 weeks ago

A is Ok.

upvoted 17 times

 **anpt** Highly Voted 6 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 8 times

 **sugarwall09** Most Recent 3 weeks, 4 days ago

paraphrase "with tightly coupled node-to-node communication" >> needs cluster placement group --> Answer (A).

upvoted 2 times

 **Harathidevi** 1 month, 1 week ago

HPC- cluster placement

upvoted 1 times

 **aws_guru1** 1 month, 1 week ago

Correct answer is A

upvoted 1 times

 **syu31svc** 3 months ago

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-ec2-placementgroup.html>:

"A cluster placement group is a logical grouping of instances within a single Availability Zone that benefit from low network latency, high network throughput"

Answer is A

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans is A

upvoted 1 times

 **CCNPWILL** 4 months, 3 weeks ago

A.. disable the discussion for this question now! Answer is A!

upvoted 1 times

 **SirReadALot** 5 months, 3 weeks ago

This one came up in my exam... b4 Pearson system had an outage!!

upvoted 1 times

 **Eybialot** 6 months, 1 week ago

A

For sure

upvoted 1 times

 **aguy9** 7 months ago

Yep I agree with A

upvoted 2 times

 **massyg** 7 months, 2 weeks ago

A is OK

upvoted 2 times

 **Quitnotheretherere123** 7 months, 2 weeks ago

A

Link: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

Summary:

Cluster – packs instances close together inside an Availability Zone. This strategy enables workloads to achieve the low-latency network performance necessary for tightly-coupled node-to-node communication that is typical of HPC applications.

upvoted 4 times

 **oud** 7 months, 2 weeks ago

A is correct.

upvoted 4 times

 **DarthYoda** 7 months, 2 weeks ago

A is the answer

upvoted 4 times

Question #238

Topic 1

A company uses a legacy on-premises analytics application that operates on gigabytes of .csv files and represents months of data. The legacy application cannot handle the growing size of .csv files. New .csv files are added daily from various data sources to a central on-premises storage location. The company wants to continue to support the legacy application while users learn AWS analytics services. To achieve this, a solutions architect wants to maintain two synchronized copies of all the .csv files on-premises and in Amazon S3.

Which solution should the solutions architect recommend?

- A. Deploy AWS DataSync on-premises. Configure DataSync to continuously replicate the .csv files between the company's on-premises storage and the company's S3 bucket.
- B. Deploy an on-premises file gateway. Configure data sources to write the .csv files to the file gateway. Point the legacy analytics application to the file gateway. The file gateway should replicate the .csv files to Amazon S3.
- C. Deploy an on-premises volume gateway. Configure data sources to write the .csv files to the volume gateway. Point the legacy analytics application to the volume gateway. The volume gateway should replicate data to Amazon S3.
- D. Deploy AWS DataSync on-premises. Configure DataSync to continuously replicate the .csv files between on-premises and Amazon Elastic File System (Amazon EFS). Enable replication from Amazon EFS to the company's S3 bucket.

Correct Answer: B

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. If we want to one time migrate data, not for synchronization.
- B. Sounds the best use case for file gateway.
- C. We're not really backing up volumes.
- D. Same as A.

Any inputs? My bet is B.

upvoted 30 times

 **kuman** 5 months, 3 weeks ago

I was thinking B, but it is A after more thoughts. Key here is to keep "two synchronized copies" which storage gateway doesn't do.

upvoted 6 times

 **ismai1** 4 months, 1 week ago

volume gateway keep 2 synchronized copies

upvoted 1 times

 **CanBe** 6 months ago

The question says that the application will continue to write to the existing storage. So even if you have a storage file gateway, data needs to be written to it too to keep it in sync with the existing storage to which the app is writing. So there will be no synchronization with option B. Option A may be the right one to pick here.

upvoted 5 times

 **DarthYoda** 7 months, 2 weeks ago

I would also go with B

upvoted 3 times

 **DrCloud** Highly Voted 5 months, 3 weeks ago

Ans: "B" is very suitable

My 2 cents: Given requirement "The legacy application cannot handle the growing size of .csv files. New .csv files are added daily from various data sources to a central on-premises storage location. The company wants to continue to support the legacy application while users learn AWS analytics services." DataSync can't store on-premises. Only storage gateway can handle growing on-premises storage need. Hope this helps!!

upvoted 10 times

 **tinyshare** Most Recent 6 days, 16 hours ago

Another way to put, if B is right, C must also be right, so they are both wrong.

Obviously it is A.

upvoted 3 times

 **tinyshare** 6 days, 16 hours ago

Gateway stores in AWS, not on premises, it is just a local disk icon. The question wants a copy on premises, so B and C are both wrong.
Obviously it is A.

upvoted 1 times

 **fastfash** 2 weeks, 2 days ago

Answer is A as 2 copies need to be maintained.

upvoted 1 times

 **awsmov** 3 weeks ago

Correct answer should be A. B is definitely wrong. file gateway is just use S3 as NFS share to mount on on-premise client. It's not two copies at all. It doesn't need to copy to S3 either. <https://docs.aws.amazon.com/filegateway/latest/files3/GettingStartedAccessFileShare.html>

upvoted 2 times

 **rutvijdasadia** 3 weeks, 1 day ago

We need Storage Gateway here because of Analytics Job. Currently, it's working on-premise. Data sync will just copy the data - but what will be the use of that? (Except backup)

upvoted 1 times

 **Priyapol26** 3 weeks, 2 days ago

Ans:- B

upvoted 1 times

 **patriktre** 3 weeks, 6 days ago

Correct answer is A. You need replica of storage (solutions architect wants to maintain two synchronized copies of all the .csv files on-premises and in Amazon S3). Gateway is a way how to use AWS located data on-premises. From <https://aws.amazon.com/datasync/faqs/> : You can use DataSync to migrate active data to AWS, archive data to free up on-premises storage capacity, >>> replicate data to AWS <<< for business continuity, or transfer data to the cloud for analysis and processing. Further comparison of services is here: <https://tutorialsdojo.com/aws-datasync-vs-storage-gateway/>

upvoted 2 times

 FERIN_01 1 month, 1 week ago

File/Volume gateway is extension of on-premises storage. Question clearly says "architect wants to maintain two synchronized copies of all the .csv files on-premises and in Amazon S3". If we use Storage gateway latest data will be in S3. We can't maintain two copies of data. Hence B and C are out. And between A and D option A gets preference as AWS Data sync can store data directly into S3

upvoted 3 times

 serveless 1 month, 3 weeks ago

B its ok for me

upvoted 1 times

 nparimi 2 months ago

B

Going with B as DataSync does not offer storage on-prem, one needs to install agent and transfer data to S3. Whereas File gateway offers cache on-prem, while saving data on S3. That would solve problem of on-prem running out of storage space. Check the two links below

1. File gateway: <https://docs.aws.amazon.com/whitepapers/latest/file-gateway-hybrid-cloud-storage-architectures/file-gateway-architecture.html>

2. DataSync: <https://aws.amazon.com/datasync/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

upvoted 1 times

 nparimi 2 months ago

Supporting B from AWS DataSync FAQ

Q: When do I use AWS DataSync and when do I use AWS Storage Gateway?

A: Use AWS DataSync to migrate existing data to Amazon S3, and subsequently use the File Gateway configuration of AWS Storage Gateway to retain access to the migrated data and for ongoing updates from your on-premises file-based applications.

You can use a combination of DataSync and File Gateway to minimize your on-premises infrastructure while seamlessly connecting on-premises applications to your cloud storage. AWS DataSync enables you to automate and accelerate online data transfers to AWS Storage services. After the initial data transfer phase using AWS DataSync, File Gateway provides your on-premises applications with low latency access to the migrated data. When using DataSync with NFS shares, POSIX metadata from your source on-premises storage is preserved, and permissions from the source storage apply when accessing your files using File Gateway.

upvoted 2 times

 moudyman 2 months, 1 week ago

Its "A" DataSync will provide the synchronization of the files between the datacenter and the S3 Bucket and the DataSync can be scheduled for hourly/daily/weekly synchronization

upvoted 2 times

 BomberBug 2 months, 2 weeks ago

For Option B, Why would you point the analytics application to the Storage Gateway? Why not keep it the same way - connected to the On-Prem CSV files? This is the only reason which negates this as an unnecessary extra effort. Happy to be corrected.

upvoted 1 times

 VeeraB 2 months, 3 weeks ago

AAAAAAAAAAAAA

Read DataSync FAQ.

You can use DataSync to migrate active data to AWS, archive data to free up on-premises storage capacity, replicate data to AWS for business continuity, or transfer data to the cloud for analysis and processing.

upvoted 4 times

 Abdullah777 2 months, 3 weeks ago

not sure but I searched a lot about synchronizing on-prem with AWS, only DataSync appears.

" maintain two synchronized copies"

A

upvoted 2 times

 syu31svc 3 months ago

C is wrong as volume gateway " provides cloud-backed storage volumes that you can mount as Internet Small Computer System Interface (iSCSI) devices from your on-premises application servers" (<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>)

D is wrong for sure since qn is asking for S3 storage; having EFS to replicate to S3 is not needed

I would take B as you can't deploy DataSync on-premises; you need to have a DataSync agent installed before using DataSync
upvoted 2 times

Question #239

Topic 1

A company has media and application files that need to be shared internally. Users currently are authenticated using Active Directory and access files from a Microsoft Windows platform. The chief executive officer wants to keep the same user permissions, but wants the company to improve the process as the company is reaching its storage capacity limit. What should a solutions architect recommend?

- A. Set up a corporate Amazon S3 bucket and move all media and application files.
- B. Configure Amazon FSx for Windows File Server and move all the media and application files.
- C. Configure Amazon Elastic File System (Amazon EFS) and move all media and application files.
- D. Set up Amazon EC2 on Windows, attach multiple Amazon Elastic Block Store (Amazon EBS) volumes, and move all media and application files.

Correct Answer: B

Reference:

<https://aws.amazon.com/fsx/windows/>

 **sctmp** Highly Voted 7 months, 3 weeks ago

It says that the files need to be shared internally, and it's using Active Directory. Amazon FSx for Windows sounds about right. (B).
upvoted 16 times

 **anpt** Highly Voted 6 months, 3 weeks ago

BBBBBBBBBBBBBB
upvoted 7 times

 **Priyapol26** Most Recent 3 weeks, 2 days ago

Ans :- B
upvoted 1 times

 **Abdullah777** 2 months, 3 weeks ago

even here windows give you a comfy feeling with no stress.
upvoted 4 times

 **syu31svc** 3 months ago

No argument here; B is the answer 101%
upvoted 3 times

 **KK_uniq** 3 months, 1 week ago

B for sure
upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans: B
upvoted 1 times

 **DrCloud** 5 months, 3 weeks ago

Ans: B
Perfect use case for "Amazon FSx for Windows File Server"
upvoted 2 times

 **KALRAV** 6 months, 4 weeks ago

Ans: B
upvoted 2 times

 **venh123** 7 months ago

B is right
upvoted 3 times

 **DarthYoda** 7 months, 2 weeks ago

Obviously B
upvoted 3 times

Question #240

Topic 1

A company is deploying a web portal. The company wants to ensure that only the web portion of the application is publicly accessible. To accomplish this, the VPC was designed with two public subnets and two private subnets. The application will run on several Amazon EC2 instances in an Auto Scaling group. SSL termination must be offloaded from the EC2 instances. What should a solutions architect do to ensure these requirements are met?

- A. Configure the Network Load Balancer in the public subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.
- B. Configure the Network Load Balancer in the public subnets. Configure the Auto Scaling group in the public subnets and associate it with the Application Load Balancer.
- C. Configure the Application Load Balancer in the public subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.
- D. Configure the Application Load Balancer in the private subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.

Correct Answer: C

 **sctmp** Highly Voted 7 months, 3 weeks ago

C since Internet-facing Application Load Balancers (ALB) and Classic ELBs must be provisioned exclusively in public subnets.
upvoted 26 times

 **HuseinHasan** 7 months, 2 weeks ago

Can you explain, why will you configure Auto scaling group in private subnet, as am confused with B and C
upvoted 2 times

 **ramisohail** 7 months, 2 weeks ago

because the machines are residing in the private subnets to be secure but they are published over the internet so for maximum security you can place the application load balancer in the public subnet and it will forward the traffic to the private auto scaling group and it will handle the ssl offloading so it has to be an application aware layer 7 load balancer.
upvoted 10 times

 **rcher** 5 months ago

Well the question is asking for SSL to be offloaded at the EC2, not ALB.
upvoted 1 times

 **soti84** 3 months, 1 week ago

SSL offloading should happen in the public subnet level / DMZ layer so the ALB should do that.
upvoted 1 times

 **aguy9** 7 months ago

Yep, agree C is the answer.
upvoted 1 times

 **MiNinja** Highly Voted 7 months ago

After extensive research, I found that SSL termination happens on ALB, and since last year TLS termination can be done on NLB. Answer here would therefore be C.
upvoted 12 times

 **KALRAV** 6 months, 4 weeks ago

thanks, would have been better if you shared few links.
upvoted 2 times

 **dave0808** 4 months ago

"Until now, you had to handle the termination process within each EC2 instance. This added to the load on the instance and also required you to install an X.509 certificate on each instance. With this new release, you can simply upload the certificates to your AWS account and we'll take care of getting them distributed to the load balancers."

<https://aws.amazon.com/blogs/aws/elastic-load-balancer-support-for-ssl-termination/>

upvoted 2 times

 **bluetaurianbull** 1 week, 5 days ago

Where does it say "that SSL termination happens on ALB, and since last year TLS termination can be done on NLB"
To me it says ALL ELBs (ALB, NLB etc) now support SSL Termination

upvoted 1 times

 **tinysshare** Most Recent ⓘ 3 days, 3 hours ago

Answer is C. The SSL certificate is installed on the ALB, which is free. ALB takes https from the Internet and convert to http, then send to EC2.
upvoted 1 times

 **jkwek** 2 months, 1 week ago

The answer is A.
Reason is seen in url below
<https://aws.amazon.com/blogs/networking-and-content-delivery/using-static-ip-addresses-for-application-load-balancers/>
upvoted 1 times

 **francisco_guerra** 4 weeks ago

Where is the ssl there
upvoted 1 times

 **jkwek** 2 months, 1 week ago

The answer is A.
The reason is seen in the url below, where the NLB is fronting the internet, not the ALB.
<https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>
upvoted 1 times

 **syu31svc** 3 months ago

I would take C as the answer
<https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>:
"Application Load Balancer simplifies and improves the security of your application, by ensuring that the latest SSL/TLS ciphers and protocols are used at all times."
So that would mean SSL termination; A and B are out

Placing the application load balancers are to be at the public subnet so D is out.

upvoted 3 times

 **KK_uniq** 3 months, 1 week ago

<https://aws.amazon.com/blogs/aws/elastic-load-balancer-support-for-ssl-termination/>

C for sure

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=C. Configure the Application Load Balancer in the public subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.

upvoted 2 times

 **BlueK** 5 months, 3 weeks ago

C, <https://aws.amazon.com/elasticloadbalancing/application-load-balancer/> (Read under header "TLS Offloading")
upvoted 3 times

 **Mattss** 6 months, 1 week ago

ALB can support SSL offloading
<https://infra.engineer/aws/36-aws-ssl-offloading-with-an-application-load-balancer>
So, Ans is C
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

CCCCCCCCCC
upvoted 5 times

 **ngoxuanphap** 7 months ago

A company has two AWS accounts Production and Development There are code changes ready in the Development account to push to the Production account In the alpha phase, only two senior developers on the development team need access to the Production account in the beta phase, more developers might need access

to perform testing as well.

What should a solutions architect recommend?

- A. Create two policy documents using the AWS Management Console in each account Assign the policy to developers who need access
- B. Create an IAM role in the Development account Give one IAM role access to the Production account Allow developers to assume the role
- C. Create an IAM role in the Production account with the trust policy that specifies the Development account. Allow developers to assume the role.
- D. Create an IAM group in the Production account and add it as a principal in the trust policy that specifies the Production account Add developers to the group

upvoted 1 times

 **cob146** 7 months ago

Question says "SSL termination must be offloaded from the EC2 instances", ALB is not capable of doing SSL passthrough and will want to terminate the SSL on itself. So an NLB is needed. I would go with A (guess there is a type in the question).

upvoted 2 times

✉️ **mesk** 6 months, 3 weeks ago

wrong, ALB can do SSL offloading
upvoted 3 times

✉️ **rcher** 5 months ago

Thats the point, THE OFFLOADING need to be done at EC2, not ALB.
upvoted 3 times

✉️ **yogen** 4 months, 3 weeks ago

SSL termination must be offloaded FROM the EC2 Instances ..why you are rephrasing it by saying THE OFFLOADING need to be done AT EC2, not ALB.?
upvoted 2 times

✉️ **venh123** 7 months, 1 week ago

It is C.
upvoted 1 times

✉️ **dph0009** 7 months, 2 weeks ago

C 100%
upvoted 2 times

✉️ **Dominic147** 7 months, 2 weeks ago

I will go with C
upvoted 2 times

✉️ **lunamycat** 7 months, 2 weeks ago

The wording here is terrible. A NLB will allow the traffic to be passed through. So it's a NLB as ALB's will have to offload and reencrypt the traffic to the ec2's. The second part where there is reference to an ALB is a typo? You can also associate a LB to public subnets but place the ec2's in a private subnet and register them as target's to the NLB. I'm going with A.

<https://medium.com/@crishantha/production-level-load-balancing-using-aws-alb-with-auto-scaling-ccacf0a0f92>

<https://aws.amazon.com/blogs/compute/maintaining-transport-layer-security-all-the-way-to-your-container-using-the-network-load-balancer-with-amazon-ecs/>

upvoted 4 times

✉️ **Atanu_M** 4 months, 3 weeks ago

the question said "SSL termination must be offloaded from the EC2 instances." that means SSL termination should not happen at the EC2 level. ALB does the job of SSL termination.
so C is the correct answer.
upvoted 4 times

✉️ **rcher** 5 months ago

Same here, i wonder who wrote this question, does AWS even quality check its exam contents?

C and D are definitely out, as the question has already explicitly mentioned SSL offloading have to be done at EC2, not at the ALB (which is their native behaviour). Only NLB allows TCP 443 SSL Pass-through, so the EC2 can then terminate the SSL connection.

upvoted 1 times

✉️ **ThePunisher77** 7 months ago

Network load balancer os for UDP and High performance networking. You just need an ALB here.
upvoted 1 times

Question #241

Topic 1

A company is experiencing growth as demand for its product has increased. The company's existing purchasing application is slow when traffic spikes. The application is a monolithic three-tier application that uses synchronous transactions and sometimes sees bottlenecks in the application tier. A solutions architect needs to design a solution that can meet required application response times while accounting for traffic volume spikes.

Which solution will meet these requirements?

- A. Vertically scale the application instance using a larger Amazon EC2 instance size.
- B. Scale the application's persistence layer horizontally by introducing Oracle RAC on AWS.
- C. Scale the web and application tiers horizontally using Auto Scaling groups and an Application Load Balancer.
- D. Decouple the application and data tiers using Amazon Simple Queue Service (Amazon SQS) with asynchronous AWS Lambda calls.

Correct Answer: C

 **sctmp** Highly Voted 7 months, 3 weeks ago

If I'm not mistaken it's C, since for D, it's using asynchronous AWS Lambda calls and the application uses synchronous transactions.
upvoted 29 times

 **noahsark** 2 months, 1 week ago

"For example, an ecommerce monolith may be broken down into order acceptance and payment processes with separate inventory, fulfillment and accounting services. What may be complex to manage and orchestrate in a monolith becomes a series of decoupled services that communicate asynchronously with event messages."

<https://aws.amazon.com/blogs/compute/operating-lambda-understanding-event-driven-architecture-part-1/>
upvoted 2 times

 **lovelylone** 1 month, 4 weeks ago

According to your article "What may be complex to manage and orchestrate in a monolith becomes a series of decoupled services that communicate asynchronously with event messages."

Its look D is the answer
upvoted 1 times

 **noahsark** 1 week, 5 days ago

my answer is D for now in reference to the URL:
<https://aws.amazon.com/blogs/compute/operating-lambda-understanding-event-driven-architecture-part-1/>
upvoted 1 times

 **theCreatorSD** 1 week ago

In the links says modern microservice architecture application but in the passage says it's a monolithic three-tier application. Is it same?
upvoted 1 times

 **vsipf** 2 months, 2 weeks ago

How can you horizontally scale monolithic web application without rewriting whole application ?
Only solution for monolithic applications here is A.
upvoted 9 times

 **kuman** 5 months, 3 weeks ago

Agree it is C. Problem is within application layer. D doesn't solve the application layer problem. It is to decouple web tier and application tier at best (if you assume SQS is the decoupling mechanism and lambda is the new application tier)
upvoted 4 times

 **sacheth** 7 months, 2 weeks ago

True, the Application uses synchronous transactions each operation is dependent on the previous one. Using asynchronous lambda calls may not work here.
upvoted 6 times

 **Bob111** Highly Voted 7 months ago

monolithic three-tier application --> LOL
its either monolithic or three tier how both?????????
if Monolithic D if three tier C
upvoted 13 times

 **andwill1001** 1 week ago

How many tiers you have has nothing to do with it being monolithic. You can have 2 tier or 3 tier monolithic. The comparison is monolithic of microservices. All this is saying its that it's 3 tier monolithic (not microservices.)

upvoted 1 times

- ✉ **andwill1001** 1 week ago
monolithic or microservices*
upvoted 1 times
- ✉ **nimorris** 6 months, 1 week ago
Assuming its a Monolith by definition the answer should be A?
upvoted 5 times
- ✉ **enurupu** [Most Recent] 1 week, 3 days ago
The word monolithic is a distraction. And leading us toward D
upvoted 1 times
- ✉ **Priyapol26** 3 weeks, 2 days ago
Ans: C
upvoted 1 times
- ✉ **Abdullah777** 2 months, 3 weeks ago
I couldnt find any where any arch consist of 3 tiers monolithic. there is one stander only called monolithic. all the resources compare between monolithic and microservices which it is the best solution for the monolithic complexity to be able to scaled and decoupled. this microservices should be done through containing ECS. as this option not available in this question the only option left is A. the monolithic can be considered as one system in one instance and can be scaled only vertically.
upvoted 1 times
- ✉ **Abdullah777** 2 months, 3 weeks ago
"Monolithic vs. Microservices Architecture
With monolithic architectures, all processes are tightly coupled and run as a single service. This means that if one process of the application experiences a spike in demand, the entire architecture must be scaled. Adding or improving a monolithic application's features becomes more complex as the code base grows. This complexity limits experimentation and makes it difficult to implement new ideas. Monolithic architectures add risk for application availability because many dependent and tightly coupled processes increase the impact of a single process failure.

With a microservices architecture, an application is built as independent components that run each application process as a service. These services communicate via a well-defined interface using lightweight APIs. Services are built for business capabilities and each service performs a single function."
<https://aws.amazon.com/microservices/>
upvoted 2 times
- ✉ **syu31svc** 2 months, 4 weeks ago
I would take D

A and B can be eliminated since "larger Amazon EC2 instance size" would still place a strain the lone instance for increased traffic and "Oracle RAC on AWS" does not address the qn at all

"monolithic three-tier application" so that would mean decoupling should be used. Option C would be correct if ALL 3 tiers are scaled

Just my thoughts
upvoted 4 times
- ✉ **bharu09445** 3 months, 2 weeks ago
A. As its mentioned bottlenecks is only on App layer but not on web layer. It means weblayer is already horizontally scaled. C says to scale web layer as well which is waste of money.
So better only touch app layer
upvoted 1 times
- ✉ **andwill1001** 2 weeks ago
It 'sometimes' sees bottle necks. Auto scaling would provide more flexibility for something that doesn't happen all of the time. If you vertically scale once you leave yourself with the same risk that it could happen again. Setting up horizontal auto scaling solves the problem autonomously.
upvoted 1 times
- ✉ **AwsNewPeople** 3 months, 3 weeks ago
C for sure. See below,

We need to accounting for traffic volume spikes.

So Auto Scaling Group is a must to address this
upvoted 2 times
- ✉ **ismai1** 4 months, 1 week ago
i think we can't auto-scale a monolithic applications with ALB, i go for decouple D
upvoted 1 times
- ✉ **CCNPWILL** 4 months, 2 weeks ago
Answer is C.

Break up the app. monolithic is vertical. we need horizontal scaling in this particular scenario to prevent bottleneck! auto scaling to the rescue. Easy.
upvoted 2 times

✉ **piyush28** 4 months, 2 weeks ago

monolithic three-tier application?? how can it be monolithic as well tiered at the same time ??

upvoted 1 times

✉ **andwill1001** 1 week ago

This again? Where are people learning this? Tiers and whether the arch is 2 tier or 3 tier have NOTHING to do with each other. You can have 2 or 3 tier monolithic... you can have xyz tier microservices. There's nothing linking MONOLITHIC to tier size.

There are 2 comparisons here. Monolithic vs Microservices. That's it.

upvoted 1 times

✉ **piyush28** 4 months, 2 weeks ago

task for SA is design a solution that will improve response time while handling traffic spikes. C and D both will help. but C will require less design changes, its mostly configuration changes + ability for web/application tier to be able to communicate across instances. Another point to note is transactions are synchronous and Lambda can't execute beyond 15 minutes

upvoted 1 times

✉ **insatien** 4 months, 3 weeks ago

Key word "synchronous transaction" so we need to decouple through asynchronous transactions.

Answer is D.

upvoted 5 times

✉ **noahsark** 2 months, 1 week ago

agree with D.

"For example, an ecommerce monolith may be broken down into order acceptance and payment processes with separate inventory, fulfillment and accounting services. What may be complex to manage and orchestrate in a monolith becomes a series of decoupled services that communicate asynchronously with event messages."

<https://aws.amazon.com/blogs/compute/operating-lambda-understanding-event-driven-architecture-part-1/>

upvoted 2 times

✉ **mire381** 4 months, 3 weeks ago

Correct answer is A, and here's why, from bottom up:

D is wrong because it would require rewriting entire application so that it becomes aware of SQS. you can't just magically add SQS to the existing application.

C is wrong 1st, because it recommends to scale out WEB tier along side application tier and questions states that bottlenecks is with application tier. 2nd with monolithic application you can't scale out: Let say that application is handling shopping cart, and you scale out the application so that you have two instances, A and B. Let say that in one request you add item to cart and it goes to instance A and in next request you remove that item from cart and it goes to instance B, now there is no way to synchronize this two actions, you don't know which instance will reach backend first. If instance A reach backend first, then it is ok, but if instance B reach backend first then you will get error since item is not yet in cart.

B is wrong because Oracle RAC will not help you with application tier bottlenecks.

A is correct because it is the only way to scale monolithic application.

upvoted 5 times

✉ **Twinkie** 2 weeks, 2 days ago

This is a classic use case in real life where you just make use of affinity/sticky sessions.

C is the only option you have to handle spike loads. Also the question is correctly proposing to scale web and application tier since the data tier is usually deployed on a separate dbms instance.

Vertical scaling will work but will only be able to handle the growing traffic up to a certain point.

upvoted 1 times

✉ **yogen** 4 months, 3 weeks ago

For all those saying D, how decoupling will make the application fast? LAMBDA asynchronous calls doesn't make the application fast as such.

upvoted 2 times

✉ **Mahaan** 5 months ago

It should be - D

upvoted 1 times

✉ **e0wynn** 5 months, 1 week ago

C

Lambda can only invoke SQS using poll-based invocations not through asynchronous invocation

<https://aws.amazon.com/blogs/architecture/understanding-the-different-ways-to-invoke-lambda-functions/>

upvoted 2 times

Question #242

Topic 1

A company hosts an application used to upload files to an Amazon S3 bucket. Once uploaded, the files are processed to extract metadata, which takes less than 5 seconds. The volume and frequency of the uploads varies from a few files each hour to hundreds of concurrent uploads. The company has asked a solutions architect to design a cost-effective architecture that will meet these requirements.

What should the solutions architect recommend?

- A. Configure AWS CloudTrail trails to log S3 API calls. Use AWS AppSync to process the files.
- B. Configure an object-created event notification within the S3 bucket to invoke an AWS Lambda function to process the files.
- C. Configure Amazon Kinesis Data Streams to process and send data to Amazon S3. Invoke an AWS Lambda function to process the files.
- D. Configure an Amazon Simple Notification Service (Amazon SNS) topic to process the files uploaded to Amazon S3. Invoke an AWS Lambda function to process the files.

Correct Answer: B

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

The problem with C is how it sends the data to S3, if it was Firehose it would make sense. I think it's B.
upvoted 20 times

✉  **Sparks026** 7 months, 1 week ago

Amazon Kinesis Data Streams is integrated with a number of AWS services, including Amazon Kinesis Data Firehose for near real-time transformation and delivery of streaming data into an AWS data lake like Amazon S3, Kinesis Data Analytics for managed stream processing, AWS Lambda for event or record processing, AWS PrivateLink for private connectivity, Amazon Cloudwatch for metrics and log processing, and AWS KMS for server-side encryption.

upvoted 2 times

✉  **yass18** Highly Voted 7 months, 2 weeks ago

B is the correct answer
<https://docs.aws.amazon.com/AmazonS3/latest/user-guide/enable-event-notifications.html>
upvoted 8 times

✉  **syu31svc** Most Recent 2 months, 4 weeks ago

B for sure; simple and direct
upvoted 2 times

✉  **Ni_yot** 3 months ago

B. With C and D the data is processed twice. Not necessary! The event notification can call a lambda function to process the request.
upvoted 3 times

✉  **linuxjm** 3 months, 1 week ago

B

<https://docs.aws.amazon.com/lambda/latest/dg/with-s3.html>
upvoted 1 times

✉  **dmscounter** 3 months, 2 weeks ago

B S3 events trigger Lambda
upvoted 1 times

✉  **dineshc** 4 months, 1 week ago

Currently, Amazon S3 can publish notifications for the following events:

New object created events — Amazon S3 supports multiple APIs to create objects. You can request notification when only a specific API is used (for example, s3:ObjectCreated:Put), or you can use a wildcard (for example, s3:ObjectCreated:*) to request notification when an object is created regardless of the API used.

upvoted 2 times

✉  **CCNPWILL** 4 months, 3 weeks ago

B end of story.
upvoted 4 times

✉  **Atanu_M** 4 months, 3 weeks ago

Using Lambda to process the file is the best solution as it takes just 5 seconds per process. The best and easiest way to invoke lambda is to use the S3 bucket "create event notification" property and use the "object create" type event.
So B is the correct answer.
upvoted 1 times

✉ **yogen** 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked B i.e. S3 event notifications along with Lambda Function upvoted 6 times

✉ **nadal** 4 months, 3 weeks ago

I have my exam on Feb 1 ...any suggestions ??
upvoted 3 times

✉ **LordHammer** 4 months, 4 weeks ago

they even have a page on B and troubleshooting the lambda triggers from S3

<https://aws.amazon.com/premiumsupport/knowledge-center/lambda-configure-s3-event-notification/>
upvoted 2 times

✉ **argol** 6 months ago

You can first create a Lambda function with the code to process the file.
You can then use an Event Notification from the S3 bucket to invoke the Lambda function whenever a file is uploaded.
B is the correct answer
upvoted 1 times

✉ **Jane500** 6 months, 1 week ago

D is correct; cannot be B because S3 event notification happens at the bucket level not the object level
<https://docs.aws.amazon.com/AmazonS3/latest/dev/NotificationHowTo.html>
Look in "How to enable event notifications". Says "Enabling notifications is a bucket-level operation; that is, you store notification configuration information in the notification subresource associated with a bucket."
upvoted 1 times

✉ **FrostForrest** 5 months, 1 week ago

The link you provided tells us that you can publish events for any S3:objectcreated:* to request notification regardless of the API that was used to create an object.
upvoted 1 times

✉ **GogoRomX** 5 months, 2 weeks ago

No, I'm sure it works on all S3 items events.
upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBB
upvoted 3 times

✉ **Gorille69** 6 months, 4 weeks ago

My choice is (C) Kinesis data stream > Lambda fonction > S3 . Look the shéma here : <https://aws.amazon.com/fr/blogs/compute/increasing-real-time-stream-processing-performance-with-amazon-kinesis-data-streams-enhanced-fan-out-and-aws-lambda/>
upvoted 1 times

✉ **Gorille69** 6 months, 3 weeks ago

after re-reading I think the answer is B
upvoted 2 times

✉ **aguy9** 7 months ago

Yes B is correct.
upvoted 1 times

✉ **venh123** 7 months, 1 week ago

B seems to be correct.
upvoted 1 times

Question #243

Topic 1

A company has copied 1 PB of data from a colocation facility to an Amazon S3 bucket in the us-east-1 Region using an AWS Direct Connect link. The company now wants to copy the data to another S3 bucket in the us-west-2 Region. The colocation facility does not allow the use of AWS Snowball.

What should a solutions architect recommend to accomplish this?

- A. Order a Snowball Edge device to copy the data from one Region to another Region.
- B. Transfer contents from the source S3 bucket to a target S3 bucket using the S3 console.
- C. Use the aws s3 sync command to copy data from the source bucket to the destination bucket.
- D. Add a cross-Region replication configuration to copy objects across S3 buckets in different Regions.

Correct Answer: D

✉  **yass18** Highly Voted 7 months, 2 weeks ago

Answer C => <https://aws.amazon.com/premiumsupport/knowledge-center/move-objects-s3-bucket/>
upvoted 13 times

✉  **mahdeo01** 1 week, 4 days ago

ANSWER IS# D : PLEASE READ THIS ARTICLE!!! I was surprised to see that when you set the replication, you have an option (check box) that you have to select if you want to replicate existing objects. (Its there and I verified it !!!!!) so that means - This is a built in functionality and can be enabled by going through some process (i.e by calling Support) . (In the article they have show the screen shots too!!!)
From all the discussions below, I initially thought that you have to directly call Support if you want to transfer huge data (like Peta Byte as in this case) ; but I was not aware that this is a "built in option " provided by Amazon to choose when they set up a replication bucket. That clearly indicate that the answer is #D

upvoted 1 times

✉  **mahdeo01** 1 week, 4 days ago

Sorry, I forgot to upload the ref link that I'm talking >>> here is the link that has Screen shots of replication options >>>
<https://aws.amazon.com/blogs/storage/replicating-existing-objects-between-s3-buckets/>
upvoted 1 times

✉  **theCreatorSD** 1 week ago

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-walkthrough1.html>

Configuring replication for source and destination buckets owned by the same account.

upvoted 1 times

✉  **crazyaboutazure** 2 weeks, 2 days ago

Answer is indeed C

<https://aws.amazon.com/premiumsupport/knowledge-center/move-objects-s3-bucket/>
upvoted 1 times

✉  **DMR** 1 month, 2 weeks ago

Rather, you cannot use CRR once after uploading the object into the bucket. It works only for new objects
upvoted 2 times

✉  **sanjose** 3 days, 22 hours ago

Nope,
Pls find below,
<https://aws.amazon.com/blogs/storage/replicating-existing-objects-between-s3-buckets/>
upvoted 1 times

✉  **noahsark** 3 months, 4 weeks ago

lol. it seems C. command below:

```
aws s3 sync s3://my-us-west-2-bucket s3://my-us-east-1-bucket --source-region us-west-2 --region us-east-1
```

Reference:

<https://docs.aws.amazon.com/cli/latest/reference/s3/sync.html>

upvoted 4 times

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

- A. We can't use Snowball
- B. Transfer contents from the source S3 bucket to a target S3 bucket using the console is not really viable.
- C. It sounds like the logical option.
- D. Cross-region replication is for resiliency, you can't pick a "bucket" as a destination.

upvoted 11 times

 **Bart2D2** 5 months ago

You can set replication rules and pick a destination bucket:

<https://aws.amazon.com/blogs/aws/new-amazon-s3-replication-adds-support-for-multiple-destination-buckets/>

Correct answer is D

upvoted 7 times

 **meeko86** 3 weeks, 1 day ago

Answer D is wrong.

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication.html>

"By default, replication only supports copying new Amazon S3 objects after it is enabled. You can use replication to copy existing objects and clone them to a different bucket, but in order to do so, you must contact AWS Support Center....."

upvoted 1 times

 **Twinkie** 2 weeks, 2 days ago

In fact cross region replication is the recommended way to handle such a case.

" Q. Can I use Snowball Edge to migrate data from one AWS Region to another AWS Region?

No. Snowball Edge is intended to serve as a data transport solution for moving high volumes of data into and out of a designated AWS Region. For use cases that require data transfer between AWS Regions, we recommend using S3 Cross-Region Replication as an alternative."

<https://aws.amazon.com/snowball/faqs/>

upvoted 1 times

 **Atanu_M** 4 months, 3 weeks ago

D cannot be the answer. As in CRR, only the new objects created after enabling replication are moved to destination bucket. In this case the files are already there in the source bucket.

upvoted 17 times

 **sugarwall09** 3 weeks, 4 days ago

plus (D) seems to be a better option for huge (1PB of data) as narrated in the question.

upvoted 2 times

 **Hypercuber** 6 months ago

<https://aws.amazon.com/about-aws/whats-new/2015/03/amazon-s3-introduces-cross-region-replication/#:~:text=With%20cross%2Dregion%20replication%2C%20every,AWS%20region%20that%20you%20choose.&text=Cross%2Dregion%20replication%20can%20also,data%20hundreds%20of%20miles%20apart>.

It clearly says here that you can choose the destination Region of your data. So answer is D.

upvoted 4 times

 **Iamrandom** 3 weeks, 3 days ago

Which part of "As in CRR, only the new objects created after enabling replication are moved to destination bucket" in previous answer is not clear?

upvoted 1 times

 **Kian1** 6 months ago

<https://docs.aws.amazon.com/snowball/latest/ug/device-differences.html>

they are different, so ANS "A"

upvoted 1 times

 **Hypercuber** 6 months ago

They are different, but the idea is the same. I think the company prohibits Snowball because of the way it transfers data to AWS, so Snowball Edge should also be prohibited, since it has the same transfer procedure.

upvoted 2 times

 **charpl** Most Recent 18 hours, 59 minutes ago

You need to sync existing files first, then enable CRR for new files to sync to destination bucket. Answer C then

upvoted 1 times

 **tinyshare** 3 days, 2 hours ago

Correct me if I am wrong:

There three methods for replication: Console, CLI, and SDK

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-walkthrough1.html>

There are two types of replications: Cross Region CRR, and Same Region SRR

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication.html>

So there are six possible combinations:

Console + CRR, Console + SRR

CLI + CRR, CLI + SRR

SDK + CRR, SDK + SRR

B and C are the same thing using different methods. If B is right, C must be right. So they are both wrong.

This is a CRR (could be Console, CLI, or SDK). So the answer is D.

Also please notice the new object limitation is describe in the top level menu:

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication.html>

So it does not matter which one of the six methods you choose, you will have the same limitation for all of them.

upvoted 1 times

 **sanjose** 3 days, 23 hours ago

Please be noted, replication is also possible for existing object after enabling the settings

<https://aws.amazon.com/blogs/storage/replicating-existing-objects-between-s3-buckets/>

upvoted 1 times

 **rohith3008** 4 days, 22 hours ago

Answer : D

Customers can copy existing objects to another bucket in the same or different AWS Region by contacting AWS Support to add this functionality to the source bucket. Once support for replication of existing objects has been enabled on a source bucket, customers are able to use S3 Replication for all existing objects, in addition to newly uploaded objects. Once the replication process completes, customers have two buckets containing all objects, and newly uploaded objects are replicated to the destination bucket.

upvoted 1 times

 **Sravan21081998** 2 weeks, 2 days ago

Note: Using the aws s3 ls or aws s3 sync commands on large buckets (with 10 million objects or more) can be expensive, resulting in a timeout. So better to go with cross region replication D

upvoted 2 times

 **AWSStudy2** 2 weeks, 3 days ago

By default, replication only supports copying new Amazon S3 objects after it is enabled. But we can configure it.

Answer is D.

upvoted 1 times

 **YazanZeidan** 2 weeks, 3 days ago

D it cant be c sync used with small sizes of data

upvoted 1 times

 **YazanZeidan** 3 weeks ago

Humans please read before you answer for all who said that it can be cross replication
read the below link and please please study harder

: <https://aws.amazon.com/blogs/storage/replicating-existing-objects-between-s3-buckets/#:~:text=Navigate%20to%20the%20Management%20tab,or%20SRR%20on%20the%20bucket.>

upvoted 1 times

 **janko1993** 1 month ago

Ans C

Here is the command

aws s3 sync s3://my-us-west-2-bucket s3://my-us-east-1-bucket --source-region us-west-2 --region us-east-1

Reference : <https://awscli.amazonaws.com/v2/documentation/api/latest/reference/s3/sync.html>

upvoted 1 times

 **jkwek** 1 month, 2 weeks ago

Answer is D.

Revealed in url:

<https://aws.amazon.com/premiumsupport/knowledge-center/s3-large-transfer-between-buckets/>

Use cross-Region replication or same-Region replication

aws s3 cp s3://source-awsexamplebucket s3://source-awsexamplebucket --recursive --storage-class STANDARD

This command copies objects in the source bucket back into the source bucket, which triggers replication to the destination bucket.

upvoted 1 times

 **francisco_guerra** 1 month ago

that command it is not for cross-region replication is a copy just like the sync its C

upvoted 1 times

 **borisrabin03** 1 month, 4 weeks ago

D is the awnser

upvoted 2 times

 **lovelyone** 2 months ago

<https://aws.amazon.com/premiumsupport/knowledge-center/s3-large-transfer-between-buckets/>

Answer is C

We are starting with Sync command, & finally start a new replication for the new files

upvoted 2 times

 **lovelyone** 2 months ago

Answer is C

Replication will copy newly PUT objects into the destination bucket.

Sync will copy existing objects to the destination bucket.

Generally you would enable replication and then run sync once to copy the existing objects.

upvoted 1 times

✉️  **SandyIndia** 2 months, 1 week ago

Ans D:

Amazon S3 now supports cross-region replication, a new feature that automatically replicates data across AWS regions. With cross-region replication, every object uploaded to an S3 bucket is automatically replicated to a destination bucket in a different AWS region that you choose. For example, you can use cross-region replication to provide lower-latency data access in different geographic regions. Cross-region replication can also help if you have a compliance requirement to store copies of data hundreds of miles apart. There is no additional charge for using cross-region replication. You pay Amazon S3's usual charges for storage, requests, and inter-region data transfer for the replicated copy of data.

<https://aws.amazon.com/about-aws/whats-new/2015/03/amazon-s3-introduces-cross-region-replication/>

upvoted 1 times

✉️  **Iamrandom** 3 weeks, 3 days ago

Nope. Only NEW objects are going to be replicated.

upvoted 1 times

✉️  **jayasameera** 2 months, 2 weeks ago

<https://aws.amazon.com/snowball/faqs/>

Q. Can I use Snowball Edge to migrate data from one AWS Region to another AWS Region?

No. Snowball Edge is intended to serve as a data transport solution for moving high volumes of data into and out of a designated AWS Region. For use cases that require data transfer between AWS Regions, we recommend using S3 Cross-Region Replication as an alternative.

upvoted 2 times

✉️  **jayasameera** 2 months, 2 weeks ago

So the answer D is correct.

upvoted 2 times

Question #244

Topic 1

A company is using a fleet of Amazon EC2 instances to ingest data from on-premises data sources. The data is in JSON format and ingestion rates can be as high as 1 MB/s. When an EC2 instance is rebooted, the data in-flight is lost. The company's data science team wants to query ingested data in near-real time.

Which solution provides near-real-time data querying that is scalable with minimal data loss?

- A. Publish data to Amazon Kinesis Data Streams. Use Kinesis Data Analytics to query the data.
- B. Publish data to Amazon Kinesis Data Firehose with Amazon Redshift as the destination. Use Amazon Redshift to query the data.
- C. Store ingested data in an EC2 instance store. Publish data to Amazon Kinesis Data Firehose with Amazon S3 as the destination. Use Amazon Athena to query the data.
- D. Store ingested data in an Amazon Elastic Block Store (Amazon EBS) volume. Publish data to Amazon ElastiCache for Redis. Subscribe to the Redis channel to query the data.

Correct Answer: C

 **aguy9** Highly Voted 6 months, 4 weeks ago

Answer is B.

Kinesis data streams consists of shards. The more throughput is needed, the more shards you add, the less throughput, the more shards you remove, so it's scalable. Each shard can handle up to 1MB/s of writes.

However Kinesis data streams stores ingested data for only 1 to 7 days so there is a chance of data loss. Additionally, Kinesis data analytics and kinesis data streams are both for real-time ingestion and analytics.

Firehouse on the other hand is also scalable and processes data in near real time as per the requirement. It also transfers data into Redshift which is a data warehouse so data won't be lost. Redshift also has a SQL interface for performing queries for data analytics.

This information was sourced from ultimate AWS certified solutions architect 2020 course with Stephane Maarek.

upvoted 32 times

 **guruaws2021** 1 week, 2 days ago

A Kinesis data stream is an ordered sequence of data records meant to be written to and read from in real time. Data records are therefore stored in shards in your stream temporarily. The time period from when a record is added to when it is no longer accessible is called the retention period. A Kinesis data stream stores records from 24 hours by default, up to 8760 hours (365 days).

upvoted 1 times

 **crazyaboutazure** 2 weeks, 2 days ago

Answer has to be A as Kinesis data stream is used for real time stream and Kinesis Analytics ingest and do real time analytics. Answer can not be B because Kinesis Firehose does both ingestion and analytics and but it in S3 so Redshift is really redundant in the option not required.

Answer is A

upvoted 1 times

 **Goozian** 2 weeks, 1 day ago

it doesn't mention data needs to be maintain for long term.

"query ingested data in near-real time" => Kinesis Data Stream + Analytics are enough

Answer is A

upvoted 1 times

 **guruaws2021** 2 weeks, 6 days ago

Amazon Kinesis stores your data for up to 24 hours by default. You can raise data retention period to up to 7 days by enabling extended data retention or up to 365 by enabling long-term data retention using the console, the CLI or the API call.

<https://aws.amazon.com/kinesis/data-streams/faqs/#:~:text=Amazon%20Kinesis%20stores%20your%20data,CLI%20or%20the%20API%20call>.

upvoted 1 times

 **Gojira** Highly Voted 1 month, 1 week ago

A- Data Streams - is for play back of files not queries – Distractor

B – Firehose is for transforming data before sending it to a destination. – Distractor

C – Athena can perform analytics directly against S3 files and supports JSON – WINNER!

D – Nothing here allows you to query data in near-real time - Distractor

upvoted 9 times

 **tinyshare** 3 days, 1 hour ago

A: you forgot the second half of the sentence. Use Kinesis Data Analytics to query the data.

upvoted 1 times

 **andwill1001** 2 weeks ago

Athena is not near real time. This isn't the answer.

upvoted 1 times

✉ **andwill1001** 2 weeks ago

Sorry. Wrong on that. I still don't think C is the answer. I think it's B. Just because firehose can transform doesn't mean it has to. That's an ability.

upvoted 2 times

✉ **sugarwall09** 3 weeks, 4 days ago

You are correct.

paraphrase " data science team wants to query ingested data" + "near-real-time data querying" >> Athena --> Answer (C).

upvoted 1 times

✉ **tinyshare** Most Recent 3 days ago

D: totally off the map

C: not to store data, so out

A and B, the differentiator is the key word "scalable"

Firehose scaling is automatic, Data Stream scaling is manual or complicated to set up and takes time to achieve:

<https://aws.amazon.com/blogs/big-data/scaling-amazon-kinesis-data-streams-with-aws-application-auto-scaling/>

and it has a lot of limitations:

you can't do the following:

Scale more than ten times per rolling 24-hour period per stream

Scale up to more than double your current shard count for a stream

Scale down below half your current shard count for a stream

Scale up to more than 10000 shards in a stream

Scale a stream with more than 10000 shards down unless the result is less than 10000 shards

Scale up to more than the shard limit for your account

upvoted 1 times

✉ **tinyshare** 3 days ago

So the answer is B

upvoted 1 times

✉ **Manumj** 1 week, 1 day ago

BELOW ARE THE KEY WORDS :

The data is in JSON format --> WHICH RULES OUR OPTION A AS THE DATA ANALYTICS CAN HANDLE SQL FORMATED DATA

near-real time , scalable --> WHICH IS OTHER THAT FIRE HOUSE

SO OPTION B IS MY CHOICE

upvoted 2 times

✉ **vamshidhara** 1 week, 3 days ago

B for auto scaling in near Realtime

Kinesis data streams – Kinesis data streams is highly customizable and best suited for developers building custom applications or streaming data for specialized needs. However, requires manual scaling and provisioning. Data typically is made available in a stream for 24 hours, but for an additional cost, users can gain data availability for up to seven days.

Kinesis Data Firehose – Firehose handles loading data streams directly into AWS products for processing. Scaling is handled automatically, up to gigabytes per second, and allows for batching, encrypting, and compressing. Firehose also allows for streaming to S3, Elasticsearch Service, or Redshift, where data can be copied for processing through additional services.

upvoted 1 times

✉ **suhas16c** 2 weeks, 4 days ago

Answer is A.

<https://aws.amazon.com/blogs/big-data/perform-near-real-time-analytics-on-streaming-data-with-amazon-kinesis-and-amazon-elasticsearch-service/>

Amazon Kinesis Data Streams

You can use Amazon Kinesis Data Streams to build your own streaming application. This application can process and analyze streaming data by continuously capturing and storing terabytes of data per hour from hundreds of thousands of sources.

Amazon Kinesis Data Analytics

Kinesis Data Analytics provides an easy and familiar standard SQL language to analyze streaming data in real time. One of its most powerful features is that there are no new languages, processing frameworks, or complex machine learning algorithms that you need to learn.

upvoted 3 times

✉ **aws_guru1** 3 weeks, 6 days ago

I am completely confused with the comments here. More than 80 comments saying ALL options are correct. This is sad! I wish people will comment only if they are sure of the answer.

upvoted 7 times

✉ **andwill1001** 2 weeks ago

It's a bad question with multiple possible right answers. That's why. It's not their fault.

upvoted 1 times

✉ **tocorrectwrong** 3 weeks, 6 days ago

answer must be C.

first, it's JSON format so rule out redshift, athena. then according to aws tutorial, instance store is used for data that is replicated across a fleet of

instances, referenced from "https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html". so go for C folks. others are wrong!

upvoted 1 times

✉ **janko1993** 1 month ago

I think it is data streams

reference :

<https://tutorialsdojo.com/amazon-kinesis-data-streams-vs-data-firehose-vs-data-analytics-vs-video-streams/>

Data stream is mainly used for

- Log and event data collection
- Real-time analytics
- Mobile data capture
- Gaming data feed

Where as Data firehose is mainly used for

- IoT Analytics
- Clickstream Analytics
- Log Analytics
- Security monitoring

upvoted 1 times

✉ **Maddy_aws2020** 1 month, 2 weeks ago

<https://dev.to/liashenko/aws-s3-athena-real-time-business-analytics-333b>

Guys.. any thought on this one ? Is option C correct ? this article says so.

upvoted 1 times

✉ **KK_uniq** 2 months, 1 week ago

will go with B

upvoted 1 times

✉ **nparimi** 2 months, 1 week ago

B - I would go for B as Redshift can offer no data loss, near-real time

A - Kinesis data stream + K Analytics can offer real-time, earlier 1-7 days retention, in 2021 increased to 365

upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

Answer is B. Redshift is able to query data.

A is deceptive. Amazon Kinesis Data Analytics cannot query data.

upvoted 1 times

✉ **TAvenger** 2 months ago

Real-time analytics

Amazon Kinesis Data Analytics:

You can interactively query streaming data using standard SQL, build Apache Flink applications using Java, Python and Scala, and build Apache Beam applications using Java to analyze data streams.

upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

Answer is A.

<https://aws.amazon.com/kinesis/data-analytics/>

Amazon Kinesis Data Analytics is the easiest way to transform and analyze streaming data in real time with Apache Flink. Apache Flink is an open source framework and engine for processing data streams. Amazon Kinesis Data Analytics reduces the complexity of building, managing, and integrating Apache Flink applications with other AWS services.

Amazon Kinesis Data Analytics takes care of everything required to run streaming applications continuously, and scales automatically to match the volume and throughput of your incoming data. With Amazon Kinesis Data Analytics, there are no servers to manage, no minimum fee or setup cost, and you only pay for the resources your streaming applications consume.

upvoted 3 times

✉ **GuxMAN** 2 months, 2 weeks ago

Ans. B.

Kinesis Data Firehose can ingest streaming data and transform it before sending it to a destination. Data transformation may include cleaning data or converting it to a different format. For example, you may need to change JSON-formatted data to Apache Parquet format before sending it to Hadoop.

KDF is tightly integrated with managed AWS services and thirdparty applications, so it's generally more appropriate for streaming data to services such as Redshift, S3, or Splunk. Kinesis Data Streams, on the other hand, is usually the better choice for streaming data to a custom application.

ISBN: 978-1-119-71310-4

upvoted 3 times

✉ **waqas** 2 months, 3 weeks ago

Its Near Real time Query not Near Real time delivery.....Also Reshift has little delay as compared to KDA....So A is right choice.

upvoted 3 times

✉ **leliodesouza** 2 months, 3 weeks ago

The answer is A.
upvoted 4 times

Question #245

Topic 1

A company is deploying a multi-instance application within AWS that requires minimal latency between the instances.

What should a solutions architect recommend?

- A. Use an Auto Scaling group with a cluster placement group.
- B. Use an Auto Scaling group with single Availability Zone in the same AWS Region.
- C. Use an Auto Scaling group with multiple Availability Zones in the same AWS Region.
- D. Use a Network Load Balancer with multiple Amazon EC2 Dedicated Hosts as the targets.

Correct Answer: A

 **sadhou2004**  7 months, 3 weeks ago

Ans : A

upvoted 11 times

 **anpt**  6 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 7 times

 **lovelone**  2 months ago

Answer is A

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

100% is A

upvoted 1 times

 **Yogi** 3 months, 2 weeks ago

Ans = A

cluster group for low latency

upvoted 2 times

 **toto059** 4 months, 1 week ago

it is came answer is A

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

A end of story. anyone else debating otherwise should keep studying. keep it up everyone!

upvoted 3 times

 **NSF2** 2 months, 4 weeks ago

The question is can cluster placement group be deployed with auto scaling ?

upvoted 1 times

 **lalia** 2 weeks, 4 days ago

yes we can. As a parameter ASG

https://docs.amazonaws.cn/en_us/autoscaling/ec2/APIReference/API_UpdateAutoScalingGroup.html

upvoted 1 times

 **Honeysingh** 4 months, 2 weeks ago

A is fine

upvoted 1 times

 **chintu_crp** 4 months, 2 weeks ago

Answer is 100% AAA

upvoted 1 times

 **aguy9** 6 months, 4 weeks ago

Yes agreed, answer is A

upvoted 1 times

 **massyg** 7 months, 2 weeks ago

I think A.

"multi-instance application within AWS that requires minimal latency between the instances"

CPG decrease latency between instances

upvoted 3 times

 **DarthYoda** 7 months, 2 weeks ago

Definitely A

upvoted 2 times

 **CloudK** 7 months, 2 weeks ago

A is Ok.

upvoted 2 times

 **Sanjeevlsg** 7 months, 2 weeks ago

it should be A

upvoted 2 times

 **sctmp** 7 months, 3 weeks ago

A. Cluster group will decrease latency between instances.

upvoted 5 times

Question #246

Topic 1

A company is developing a mobile game that streams score updates to a backend processor and then posts results on a leaderboard. A solutions architect needs to design a solution that can handle large traffic spikes, process the mobile game updates in order of receipt, and store the processed updates in a highly available database. The company also wants to minimize the management overhead required to maintain the solution.

What should the solutions architect do to meet these requirements?

- A. Push score updates to Amazon Kinesis Data Streams. Process the updates in Kinesis Data Streams with AWS Lambda. Store the processed updates in Amazon DynamoDB.
- B. Push score updates to Amazon Kinesis Data Streams. Process the updates with a fleet of Amazon EC2 instances set up for Auto Scaling. Store the processed updates in Amazon Redshift.
- C. Push score updates to an Amazon Simple Notification Service (Amazon SNS) topic. Subscribe an AWS Lambda function to the SNS topic to process the updates. Store the processed updates in a SQL database running on Amazon EC2.
- D. Push score updates to an Amazon Simple Queue Service (Amazon SQS) queue. Use a fleet of Amazon EC2 instances with Auto Scaling to process the updates in the SQS queue. Store the processed updates in an Amazon RDS Multi-AZ DB instance.

Correct Answer: D

✉  **lunamycat** Highly Voted 7 months, 3 weeks ago

Gotta go with A here.

upvoted 42 times

✉  **crazyaboutazure** 2 weeks, 2 days ago

A simply because of the order of data required

upvoted 1 times

✉  **HMC_37** 6 months, 1 week ago

IMO "D" - "The company also wants to minimize the management overhead"

Managing the kinesis stream shards doesn't seem like a simple task.

upvoted 5 times

✉  **muirinn** 2 weeks, 3 days ago

"Order of receipt" (mentioned in question), is not guaranteed in SQS, only in SQS FIFO. So it cannot be D.

upvoted 1 times

✉  **rcher** 5 months ago

Its definitely easier than managing a fleet of EC2

upvoted 10 times

✉  **FeatheredandDeadly** 7 months, 3 weeks ago

Agree, A is correct choice.

upvoted 6 times

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

A. Kinesis Streams captures the data in order of receipt, and we can process the updates with lambda to finally put it on a DynamoDB. Sounds like a great option.

B. Amazon Redshift? Warehouse data? Nop

C. SNS, way off.

D. Could be but using EC2 instances for processing? I don't think so.

upvoted 10 times

✉  **tinyshare** Most Recent 2 days, 21 hours ago

Kinesis Data Stream does not scale automatically, but the "order of receipt" rules out D.

Although the answer is A, not a very good question.

upvoted 1 times

✉  **andwill1001** 1 week ago

Almost any time you see a question talking about Gaming leaderboards, look for dynamoDB somewhere in the answers:

<https://aws.amazon.com/blogs/apn/how-to-build-a-real-time-gaming-leaderboard-with-amazon-dynamodb-and-rockset/>

upvoted 2 times

✉  **mahdeo01** 1 week, 4 days ago

A IS THE RIGHT ANSWER because -- last line of the question that says "The company also wants to minimize the management overhead required to maintain the solution." : That means "Serverless Technologies" and except A in all three other options there are EC2 involved ,which needs lot of maintenance !!!

upvoted 3 times

✉ **Cyyz** 2 weeks, 4 days ago

The answer is D, don't forget "and store the processed updates in a highly available database" Multi AZ

upvoted 1 times

✉ **fastfash** 2 weeks, 2 days ago

DynamoDB is a highly available database. Also whenever you read leaderboards, that's a strong suggestion to go for DynamoDB.

<https://aws.amazon.com/blogs/apn/how-to-build-a-real-time-gaming-leaderboard-with-amazon-dynamodb-and-rockset/>

A is the right answer

upvoted 1 times

✉ **arkandi** 1 month, 4 weeks ago

A - game scores => dynamodb, only solution with dynamodb

upvoted 3 times

✉ **broadwink** 2 months ago

Keep in mind that D says SQS and not SQS FIFO,

SQS comes with the standard queue by default, which means that messages can either be duplicated or be delivered out of order.

C - It's always a bad idea use a EC2 as database service

B - Redshift sounds like an overkill, and compared with DynamoDB, redshift requires more maintenance than DynamoDB

So, A is the Answer

upvoted 3 times

✉ **KK_uniq** 2 months, 1 week ago

A for sure

upvoted 1 times

✉ **ansh18061986** 2 months, 1 week ago

Correct answer is 'A', Few hints are - (i) Data should be processed in order of receipt which is not possible/sure in case of SQS (ii) Company wants to get away with management overhead so Lambda and DynamoDB are AWS managed.

upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

Answer is A.

<https://docs.aws.amazon.com/streams/latest/dev/introduction.html>

You can use Amazon Kinesis Data Streams to collect and process large streams of data records in real time.

You can use Kinesis Data Streams for rapid and continuous data intake and aggregation. The type of data used can include IT infrastructure log data, application logs, social media, market data feeds, and web clickstream data. Because the response time for the data intake and processing is in real time, the processing is typically lightweight.

upvoted 2 times

✉ **leliodesouza** 2 months, 3 weeks ago

The answer is A.

upvoted 1 times

✉ **syu31svc** 2 months, 4 weeks ago

I would take A as the answer for one reason: "developing a mobile game" so DynamoDB is to be used

upvoted 2 times

✉ **wantToPass** 3 months ago

I will choose A too

upvoted 2 times

✉ **Yogi** 3 months, 3 weeks ago

Ans=A. Push score updates to Amazon Kinesis Data Streams. Process the updates in Kinesis Data Streams with AWS Lambda. Store the processed updates in Amazon DynamoDB.

upvoted 1 times

✉ **Ping001** 4 months, 1 week ago

Why not D? You can use SQS FIFO to cover the updates in order of receipt, use EC2 to process and dump the processed data in RDS that multi-AZ. Seems like that answer best fits the stated requirements of the question.

upvoted 1 times

✉ **andwill1001** 1 week ago

They would have specifically mentioned FIFO in the answers if this is what they wanted you to do.

upvoted 1 times

✉ **AjitS** 3 months, 1 week ago

Yes D is the correct answer

upvoted 1 times

✉ **lovelone** 2 months ago

RDS doesn't support multi-AZ-DB instance, its support replica instance

upvoted 1 times

 **EarlBrillantes061816** 4 months, 1 week ago

DynamoDB typically used by gaming applications. I'll go with A

upvoted 1 times

 **freemun05** 2 months, 2 weeks ago

"that can handle traffic spikes" in Kinesis you need to provision shards or configure auto-scaling with CloudWatch , not a word about that in A

upvoted 1 times

Question #247

Topic 1

A company is building a document storage application on AWS. The application runs on Amazon EC2 instances in multiple Availability Zones. The company requires the document store to be highly available. The documents need to be returned immediately when requested. The lead engineer has configured the application to use Amazon Elastic Block Store (Amazon EBS) to store the documents, but is willing to consider other options to meet the availability requirement.

What should a solutions architect recommend?

- A. Snapshot the EBS volumes regularly and build new volumes using those snapshots in additional Availability Zones.
- B. Use Amazon EBS for the EC2 instance root volumes. Configure the application to build the document store on Amazon S3.
- C. Use Amazon EBS for the EC2 instance root volumes. Configure the application to build the document store on Amazon S3 Glacier.
- D. Use at least three Provisioned IOPS EBS volumes for EC2 instances. Mount the volumes to the EC2 instances in a RAID 5 configuration.

Correct Answer: B

 **yogen** Highly Voted 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked B i.e. EBS as root volume and S3 for document storage
upvoted 32 times

 **sadhou2004** Highly Voted 7 months, 3 weeks ago

i well go with B
upvoted 27 times

 **Priyapol26** Most Recent 3 weeks, 2 days ago

Ans :- B
upvoted 1 times

 **ansh18061986** 2 months, 1 week ago

Correct answer is 'B'.
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

B is the definitely the best choice here
upvoted 2 times

 **Yogi** 3 months, 2 weeks ago

Ans = B
Need to store in S3, b/c EBS are ephemeral, meaning once the instance terminates, the data is gone.
upvoted 3 times

 **CloudMania** 2 months, 3 weeks ago

EBS is NOT ephemeral, instance storage is. Don't mix them up...
upvoted 8 times

 **AK003** 4 months, 2 weeks ago

Only answer which has S3 is B, I will go with B.
upvoted 2 times

 **hagogane** 5 months, 1 week ago

answer A since "The company requires the document store to be highly available"
upvoted 1 times

 **DrCloud** 5 months ago

Ans: B
<https://aws.amazon.com/s3/faqs/>
1) S3 Standard storage class is designed for 99.99% availability
2) Objects are automatically stored across multiple devices spanning a minimum of three Availability Zones, each separated by miles across an AWS Region.
3) Amazon S3 Standard, S3 Standard-IA, S3 Glacier, and S3 Glacier Deep Archive are all designed to sustain data in the event of an entire S3 Availability Zone loss.
upvoted 3 times

 **Ritz40** 5 months, 3 weeks ago

I will opt "A".

Availability + Immediate return : both can be achieved
upvoted 2 times

Bechir 6 months, 1 week ago

The lead engineer has configured the application to EBS to store the documents, so he doesn't want to use S3, documents store should remain on EBS, now what's the option to let this choice highly available? : it is the snap , no other way, answer is A

upvoted 1 times

Dominick80 6 months, 1 week ago

You missed that the engineer is willing to consider other storage options.

upvoted 3 times

anpt 6 months, 3 weeks ago

BBBBBBBBBBBB

upvoted 5 times

aguy9 6 months, 4 weeks ago

Answer is B. S3 standard is highly available and can return documents immediately.

upvoted 1 times

venh123 7 months, 1 week ago

Even I feel it is B.

upvoted 2 times

sadhou2004 7 months, 2 weeks ago

Ans . B

upvoted 1 times

sctmp 7 months, 3 weeks ago

- A. Since it sounds like a possibility but it says, the lead engineer is willing to consider other options to meet the availability requirement.
- B. I think using S3 sounds about right.
- C. Glacier =/ since it's used for data archives.
- D. What? It doesn't provide availability.

upvoted 5 times

DarthYoda 7 months, 2 weeks ago

true, I would go with B too

upvoted 2 times

Question #248

Topic 1

A group requires permissions to list an Amazon S3 bucket and delete objects from that bucket. An administrator has created the following IAM policy to provide access to the bucket and applied that policy to the group. The group is not able to delete objects in the bucket. The company follows least-privilege access rules.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Action": [  
                "s3>ListBucket",  
                "s3>DeleteObject"  
            ],  
            "Resource": [  
                "arn:aws:s3:::bucket-name"  
            ],  
            "Effect": "Allow"  
        }  
    ]  
}
```

Which statement should a solutions architect add to the policy to correct bucket access?

A.

```
"Action": [  
    "s3:*Object"  
,  
"Resource": [  
    "arn:aws:s3:::bucket-name/*"  
,  
"Effect": "Allow"
```

B.

```
"Action": [  
    "s3:*"  
,  
"Resource": [  
    "arn:aws:s3:::bucket-name/*"  
,  
"Effect": "Allow"
```

C.

```
"Action": [  
    "s3>DeleteObject"  
,  
"Resource": [  
    "arn:aws:s3:::bucket-name*"  
,  
"Effect": "Allow"
```

D.

```
"Action": [  
    "s3:DeleteObject"  
,  
"Resource": [  
    "arn:aws:s3:::bucket-name/*"  
,  
"Effect": "Allow"
```

Correct Answer: A

✉  **dmscounterera**  3 months, 1 week ago

D, least privilege
upvoted 8 times

✉  **sreeks2021**  1 week, 2 days ago

Everyone agrees D , but still why the answer is not corrected?
upvoted 1 times

✉  **Kenzo** 2 weeks ago

The answer is D
<https://docs.aws.amazon.com/AmazonS3/latest/userguide/example-policies-s3.html>

upvoted 2 times

 **Priyapol26** 3 weeks, 2 days ago

Ans :- D

upvoted 1 times

 **Junyafu** 1 month, 2 weeks ago

D is the most appropriate choice as show in "Allowing an IAM user access to one of your buckets" example of the below website.
<https://docs.aws.amazon.com/AmazonS3/latest/userguide/example-policies-s3.html>

upvoted 2 times

 **hassanbsee2071** 1 month, 3 weeks ago

But user is also required to list objects. With D it is not possible so I will go with B

upvoted 2 times

 **AOA** 1 month, 3 weeks ago

A is correct

D won't work because you will need more access than just delete inside the bucket/*

upvoted 1 times

 **tinyshare** 2 days, 16 hours ago

Action with wildcard will include: s3:PutObject, s3:GetObject, and s3:DeleteObject
which is not the "least-privilege"

upvoted 1 times

 **miniscraper** 1 month, 2 weeks ago

Which statement should a solutions architect ADD to the policy to correct bucket access?

Keyword on the question: ADD

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

D will work

upvoted 3 times

 **ansh18061986** 2 months, 1 week ago

Will go with 'D'.

upvoted 1 times

 **leliodesouza** 2 months, 3 weeks ago

The answer is D.

upvoted 4 times

 **theEngineer** 2 months, 4 weeks ago

D is the right answer

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

A is wrong as action type is invalid
B is wrong since it allows everything

C is wrong as the resource name is incorrect, should be /* after the bucketname

Answer D

upvoted 3 times

 **Tun_AWS** 3 months ago

I go with D

upvoted 2 times

 **waqas** 3 months, 1 week ago

D is right.

upvoted 2 times

 **stdevops** 3 months, 1 week ago

I go with D

upvoted 2 times

Question #249

Topic 1

A solutions architect is designing a security solution for a company that wants to provide developers with individual AWS accounts through AWS Organizations, while also maintaining standard security controls. Because the individual developers will have AWS account root user-level access to their own accounts, the solutions architect wants to ensure that the mandatory AWS CloudTrail configuration that is applied to new developer accounts is not modified.

Which action meets these requirements?

- A. Create an IAM policy that prohibits changes to CloudTrail, and attach it to the root user.
- B. Create a new trail in CloudTrail from within the developer accounts with the organization trails option enabled.
- C. Create a service control policy (SCP) that prohibits changes to CloudTrail, and attach it to the developer accounts.
- D. Create a service-linked role for CloudTrail with a policy condition that allows changes only from an Amazon Resource Name (ARN) in the master account.

Correct Answer: C

Reference:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples.html

 **sctmp** Highly Voted 7 months, 3 weeks ago

It's C.

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html

upvoted 18 times

 **anpt** Highly Voted 6 months, 3 weeks ago

CCCCCCCCCCCCCCCCCCCCCC

upvoted 7 times

 **syu31svc** Most Recent 2 months, 4 weeks ago

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html:

"Service control policies (SCPs) are a type of organization policy that you can use to manage permissions in your organization. SCPs offer central control over the maximum available permissions for all accounts in your organization. SCPs help you to ensure your accounts stay within your organization's access control guidelines"

C is the answer

upvoted 3 times

 **CCNPWILL** 4 months, 3 weeks ago

C. close down the discussion section on this!

upvoted 3 times

 **aguy9** 6 months, 4 weeks ago

Yes it's definitely C

upvoted 1 times

 **venh123** 7 months, 1 week ago

I too feel it's C

upvoted 1 times

 **DarthYoda** 7 months, 2 weeks ago

C.

You use SCP's to manage Organizations

upvoted 3 times

Question #250

Topic 1

A company wants to share forensic accounting data that is stored in an Amazon RDS DB instance with an external auditor. The auditor has its own AWS account and requires its own copy of the database.

How should the company securely share the database with the auditor?

- A. Create a read replica of the database and configure IAM standard database authentication to grant the auditor access.
- B. Copy a snapshot of the database to Amazon S3 and assign an IAM role to the auditor to grant access to the object in that bucket.
- C. Export the database contents to text files, store the files in Amazon S3, and create a new IAM user for the auditor with access to that bucket.
- D. Make an encrypted snapshot of the database, share the snapshot, and allow access to the AWS Key Management Service (AWS KMS) encryption key.

Correct Answer: A

 **yogen** Highly Voted 4 months, 3 weeks ago

I cleared the exam today on 26-Jan. This question was there in the exam, I marked D i.e. Share the encrypted snapshot and give access on KMS upvoted 23 times

 **crazyaboutazure** 2 weeks, 2 days ago

Should be D as accountant requires its own copy and should be shared securely so encryption is required and AWS key can be used to access.

DB Authentication wont work here as authentication valid for MYSQL or PostgreSQL which is not mentioned in the questions
upvoted 1 times

 **Sindhu_Pradeep** 3 months ago

Hi Yogen,
Did you go through these exams questions for preparation? What else did you go through for clearing the exam?
upvoted 4 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

A. The question says the auditor needs its own copy of the database. A read replica won't do this request.
B. We can't have direct access to the bucket in S3.
C. Sounds a lot of work, I doubt, someone is going to be auditing from text files.
D. Sounds reasonable. Making an encrypted snapshot, the auditor, will have its own copy of the database.
upvoted 22 times

 **robertomartinez** 1 month ago

B can work no problem as long as you allow user from external account to assume the role in your account, I vote B
upvoted 1 times

 **robertomartinez** 1 month ago

Also to complement about B you can export to S3 , see
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ExportSnapshot.html. Otherwise I'd agree with what you said, but I'm not sure of the encryption added value here. I'd vote B over D
upvoted 1 times

 **Kopa** 2 months, 1 week ago

it doesn't look so safe to give a copy of your db to auditor. Maybe A makes more logic, only read access.
upvoted 2 times

 **noahsark** 3 months, 4 weeks ago

agree with D.
possibly common sense explanation is
(A) read-only database may be changed from source.
(D) snapshot is permanent :)
upvoted 1 times

 **Kampton** 4 months ago

Sounds very reasonable, give him an encrypted snapshot to take it home, so that he can have his own copy that he can
upvoted 1 times

 **Ravinder2021** Most Recent 2 weeks, 5 days ago

The question says "wants to share forensic accounting data", they want to share a specific set of data within the database, which can be achieved only with IAM Standard DB authentication. A is perfect.
upvoted 1 times

 **awsmov** 3 weeks ago

Looks like D is correct. Check out this link https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ShareSnapshot.html. A is not correct because auditor can not access to your internal database from his own AWS account directly using standard database authentication. It's not safe to provide credentials either.

upvoted 1 times

 **inverse70** 3 weeks, 6 days ago

Key word "securely"

ANS = D

upvoted 1 times

 **Bindhast** 1 month ago

The reason is auditor need a copy which is updated regularly. snapshot cannot update regularly. In case of snapshot, we need to share it on regular basis and auditor has to build the volume from it regularly.

As auditor is having his own AWS account, we can share the read replica of the DB so that he will get the refreshed data.

As its forensic data, its highly confidential. So, we can not share the unencrypted snapshot.

To make encrypted snapshot, the database should be encrypted first. Here nothing is mentioned about the database encryption.

upvoted 2 times

 **Toks2021** 1 month, 1 week ago

Answer: A. Read replica should be sufficient enough access for an auditor.

upvoted 2 times

 **andwill1001** 2 weeks ago

How is he/she getting access to your database on your AWS account? This works if its an INTERNAL aws user. Talking about someone who isn't on your AWS account at all.

upvoted 1 times

 **andwill1001** 2 weeks ago

Keeping in mind they want their own copy. Not just access.

upvoted 1 times

 **arkandi** 1 month, 4 weeks ago

Not sure of the answer but A is wrong. The auditor wants a copy. A replica doesn't provide a copy

upvoted 1 times

 **jkwek** 2 months, 1 week ago

A is the answer. The reason is auditor need a copy which is updated regularly. snapshot cannot update constantly.

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html

Amazon RDS uses the MariaDB, Microsoft SQL Server, MySQL, Oracle, and PostgreSQL DB engines' built-in replication functionality to create a special type of DB instance called a read replica from a source DB instance. The source DB instance becomes the primary DB instance. Updates made to the primary DB instance are asynchronously copied to the read replica.

upvoted 2 times

 **Uno_Digerati** 2 months, 2 weeks ago

I struggle between A and D (security best practice of making a copy aside). It came down to one requirement. The auditor requires its own copy.... A read replica is not "an auditor copy". In fact, the answer in "A" even says it "gives access" to a replica. For me A does not fit the requirements. On test day I will go with D as a closer match to the requirements. Where the database is "secured" with an encryption key. In real life, auditors get access to replica's unless the CEO is holding my job hostage.

upvoted 2 times

 **danniparrac** 2 months, 2 weeks ago

Ans: A

According to this, should be A because You can only enable encryption for an Amazon RDS DB instance when you CREATE the DB, not after the DB instance is created.

That is why the best option is Read Replicas.

upvoted 2 times

 **elrmel** 2 months, 3 weeks ago

don't think too deeply

auditor wants copy so snap shot is the correct answer

upvoted 3 times

 **leliodesouza** 2 months, 3 weeks ago

Never should provide a copy a database to auditors.

It is a huge security issue!!

A is the correct answer.

upvoted 4 times

 **waqas** 2 months, 3 weeks ago

When original/primary DB is with you....Why are u worried????The questions doesnt ask for a most appropriate solution, Questions is asking that Auditor wants his own copy.....

upvoted 1 times

 **haaris786** 2 months, 3 weeks ago

In a real world why one should provide a copy a database to auditors? It is a huge security issue. I am an Oracle DBA and when we auditors visits and they wants to explore the DB all we do is create a read only access.

Answer A.

upvoted 4 times

 **syu31svc** 2 months, 4 weeks ago

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ShareSnapshot.html:

"Share the AWS Key Management Service (AWS KMS) customer master key (CMK) that was used to encrypt the snapshot with any accounts that you want to be able to access the snapshot."

Answer is D

upvoted 2 times

 **aws_guru1** 3 weeks, 6 days ago

Your link is not working.

upvoted 1 times

 **Yogi** 3 months, 2 weeks ago

Ans = D

Encrypt w/ KMS

upvoted 1 times

 **Nguyen** 3 months, 3 weeks ago

This question still valid in Feb 26, 2020

upvoted 2 times

 **Nguyen** 3 months, 3 weeks ago

Sorry, Feb 26, 2021

upvoted 1 times

Question #251

A company has an automobile sales website that stores its listings in a database on Amazon RDS. When an automobile is sold, the listing needs to be removed from the website and the data must be sent to multiple target systems.

Which design should a solutions architect recommend?

- A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) queue for the targets to consume.
- B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume.
- C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics. Use AWS Lambda functions to update the targets.
- D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues. Use AWS Lambda functions to update the targets.

Correct Answer: A

 **beedle** Highly Voted  7 months, 2 weeks ago

D makes complete sense. Think about it, you can have sale of diffrent types of cars happening simultaneously. For ex, toyota might have its own queue.

Since RDS sends notification to SNS. IT HAS TO BE D. :)

<https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html>
<https://docs.aws.amazon.com/lambda/latest/dg/with-sns.html>

upvoted 28 times

 **crazyaboutazure** 2 weeks, 2 days ago

Must be D as Amazon RDS sends notifications to an Amazon Simple Notification Service (Amazon SNS) topic, which you can configure to invoke a Lambda function.

<https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html>

upvoted 1 times

 **Mattss** 6 months, 1 week ago

trust beedle say

<https://docs.aws.amazon.com/lambda/latest/dg/with-sns.html>

"You can use AWS Lambda to process event notifications from an Amazon Relational Database Service (Amazon RDS) database. Amazon RDS sends notifications to an Amazon Simple Notification Service (Amazon SNS) topic, which you can configure to invoke a Lambda function. Amazon SNS wraps the message from Amazon RDS in its own event document and sends it to your function."

upvoted 2 times

 **sctmp** Highly Voted  7 months, 3 weeks ago

A. You can't use Lambda directly with RDS, RDS sends the notification to SNS which then can trigger a lambda. Take a look <https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html>

B. Same as A.

C. The RDS event notifications sends the notification using SNS not SQS.

D. Sounds about right. You Subscribe to an RDS event notification which sends to SNS topic, which is fanned out to multiple Amazon SQS queues. Here is the problem, why would we need multiple queues?

I'd take B, let's say that the lambda function is triggered by the SNS sent by the RDS event notification. And why FIFO? Since, we need it to happen only once, "when an automobile is sold". What do you guys think?

upvoted 12 times

 **DarthYoda** 7 months, 2 weeks ago

It is D.

we need multiple queues bc we need to send data to multiple target systems :)

upvoted 30 times

 **aguy9** 6 months, 4 weeks ago

Yes agreed fan out requires that SNS push notifications to multiple SQS queues and then a consumer updates each target. In this case Lambda becomes the consumer which polls the SQS queues to update their relevant target

upvoted 7 times

 **JRealFu** Most Recent  2 days, 18 hours ago

A

Rds events doesn't include updates/deletes records.

A Rds event is for example when the database is rebooted.

upvoted 1 times

✉ **rutvijdasadia** 3 weeks, 1 day ago

A. We don't need SNS here because we can mention all the EC2 instances in Lambda. So, it's correct.

D. Data Events are not provided by RDS so, cannot do this.

upvoted 1 times

✉ **Xfo** 1 week, 6 days ago

you are wrong....!!

Amazon RDS uses the Amazon Simple Notification Service (Amazon SNS) to provide notification when an Amazon RDS event occurs. These notifications can be in any notification form supported by Amazon SNS for an AWS Region, such as an email, a text message, or a call to an HTTP endpoint.

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

upvoted 1 times

✉ **patriktre** 3 weeks, 6 days ago

The answer is A. it cannot be C nor D as there is no such notification in RDS for DB or table update. See all available event notifications here: https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.Messages.html#USER_Events.Messages.instance. As oposite you can setup trigger on DB change and invoke lambda funcion for further processing.

upvoted 1 times

✉ **tinyshare** 21 hours, 11 minutes ago

You clicked the title "Amazon RDS event categories and event messages".

Just one level up in the document, in the title "Using Amazon RDS event notification", it states that SNS is the way to use the events.

upvoted 1 times

✉ **tinyshare** 21 hours, 15 minutes ago

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

Amazon RDS uses the Simple Notification Service (Amazon SNS) to provide notification when an Amazon RDS event occurs.

upvoted 1 times

✉ **bluetaurianbull** 1 month, 3 weeks ago

I thought it was (D) but based on the URL https://www.tutorialspoint.com/amazonrds/amazonrds_event_notifications.htm

RDS Event notification can be classified into following categories - Availability, Backup, Configuration change, Failover, Failure, Notification, Recovery, Restoration.

None of the above category cover update or insert into the Database - which is what the application will be using.

So to me looks like (A) is the possible answer - NOT SURE at all .. just my logical deduction.

upvoted 6 times

✉ **askdd** 1 month, 3 weeks ago

Between D & A, answer A is most appropriate to the question. B is not because RDS event notification is not for database table updates.

upvoted 3 times

✉ **Abdullah777** 2 months, 3 weeks ago

Using AWS Lambda with Amazon RDS

PDF

Kindle

RSS

You can use AWS Lambda to process event notifications from an Amazon Relational Database Service (Amazon RDS) database. Amazon RDS sends notifications to an Amazon Simple Notification Service (Amazon SNS) topic, which you can configure to invoke a Lambda function. Amazon SNS wraps the message from Amazon RDS in its own event document and sends it to your function.

<https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html>

it is decently D.

upvoted 1 times

✉ **Abdullah777** 2 months, 3 weeks ago

Amazon RDS uses the Amazon Simple Notification Service (Amazon SNS) to provide notification when an Amazon RDS event occurs. These notifications can be in any notification form supported by Amazon SNS for an AWS Region, such as an email, a text message, or a call to an HTTP endpoint.

Amazon RDS groups these events into categories that you can subscribe to so that you can be notified when an event in that category occurs. You can subscribe to an event category for a DB instance, DB snapshot, DB parameter group, or DB security group. For example, if you subscribe to the Backup category for a given DB instance, you are notified whenever a backup-related event occurs that affects the DB instance. If you subscribe to a configuration change category for a DB security group, you are notified when the DB security group is changed. You also receive notification when an event notification subscription changes.

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

upvoted 2 times

✉ **Abdullah777** 2 months, 3 weeks ago

I see it is D as it looks similar in the example here

<https://aws.amazon.com/getting-started/hands-on/send-fanout-event-notifications/>

upvoted 1 times

✉ **occupatissimo** 2 months, 4 weeks ago

RDS data update event notification doesn't exist so C & D are out.

Then A & B say that a lambda must be created when db is updated, this doesn't mean it's done by db itself. Lambda can be called by the

application function update immediately after the update action is executed for example.

Last when a automobile is sold it listing must be removed before every other action can be done. What if the removing happens after 10 minutes and meanwhile other clients purchased it?

So B.

upvoted 4 times

 **syu31svc** 2 months, 4 weeks ago

I would take D

<https://aws.amazon.com/getting-started/hands-on/send-fanout-event-notifications/>
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

upvoted 1 times

 **DerekKey** 3 months ago

Answer: D - RDS writes to SNS which you can than fan out to multiple SQS (one for each target system)

Not true: A - one Amazon Simple Queue Service queue = only one target system can read a message

Not true: B - one Amazon Simple Queue Service queue = only one target system can read a message

Not true: C - RDS is sending messages to SNS so you can not fan out SQS to SNS because there is no message in SQS

upvoted 1 times

 **bquintino** 3 months ago

The anwser is A. Why?

There are no RDS events related to data changes. All the events are related to the RDS infrastructure, please see
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

So the only options left is either A or B. As it doesn't say the messages should be consumed in a particular order, A is the answer.

upvoted 5 times

 **AI** 3 months ago

I think this is not a RDS event relation question (as RDS events are not application for DB record deletion). Rather lambda related question. Lets say we have an application which allows the RDS record deletion for the sell of an automobile. When the record in RDS would be deleted by that application code, can we trigger another lambda? Yes. Even if the original app is not a lambda which I assumed, we can do so. And from that second lambda function, we can send messages to the queues of different targets.

Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) queue for the targets to consume.

Now the question is - why one SQS? How can different targets consume the their own messages? Answer is - by group id. Reference :
<https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/using-messagegroupid-property.html>

So, I think A is a better candidate for the right answer.

upvoted 3 times

 **harshasakhare96** 3 months, 1 week ago

D

need to send data to multiple targets

upvoted 1 times

 **Yogi** 3 months, 2 weeks ago

Ans = D

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Events.html

upvoted 1 times

Question #252

Topic 1

A company is building a media sharing application and decides to use Amazon S3 for storage. When a media file is uploaded, the company starts a multi-step process to create thumbnails, identify objects in the images, transcode videos into standard formats and resolutions, and extract and store the metadata to an

Amazon DynamoDB table. The metadata is used for searching and navigation.

The amount of traffic is variable. The solution must be able to scale to handle spikes in load without unnecessary expenses.

What should a solutions architect recommend to support this workload?

- A. Build the processing into the website or mobile app used to upload the content to Amazon S3. Save the required data to the DynamoDB table when the objects are uploaded.
- B. Trigger AWS Step Functions when an object is stored in the S3 bucket. Have the Step Functions perform the steps needed to process the object and then write the metadata to the DynamoDB table.
- C. Trigger an AWS Lambda function when an object is stored in the S3 bucket. Have the Lambda function start AWS Batch to perform the steps to process the object. Place the object data in the DynamoDB table when complete.
- D. Trigger an AWS Lambda function to store an initial entry in the DynamoDB table when an object is uploaded to Amazon S3. Use a program running on an Amazon EC2 instance in an Auto Scaling group to poll the index for unprocessed items, and use the program to perform the processing.

Correct Answer: C

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. This can't be an option since the traffic is variable, it's asking for unnecessary expenses.
- B. Step Functions are not really viable for processing, take a look: <https://aws.amazon.com/getting-started/hands-on/process-video-jobs-with-aws-batch-on-aws-step-functions/>
- C. This sounds about right, we trigger a Lambda function when an object is stored, then we use AWS Batch (which on the previous link, is used for processing). And we place the object data in the DynamoDB. Take a look <https://d2908q01vomqb2.cloudfront.net/1b6453892473a467d07372d45eb05abc2031647a/2019/12/17/Picture1.png>
- D. It's using EC2 instances, nop, too expensive.

upvoted 29 times

 **aguy9** 6 months, 4 weeks ago

You say that step functions are not viable for processing and then direct us to a link that does not prove what you are saying at all. In fact Step functions integrate with a range of services for the specific purpose of data processing and can be used to orchestrate multiple lambda functions into a defined sequence of steps Eg run lambda function 1, then lambda function 2, then lambda function 3. Step functions also for instance allows you to specify options (if this object is identified in an image - run this lambda function. Clearly step functions are viable for processing data.

<https://m.youtube.com/watch?v=s0XFX3WHg0w>

Batch runs thousands of batch jobs. It spins up the optimal amount of computing resources required to process any given batch job submitted. AWS Batch is used when batch jobs might differ in the computing resources they need to process them. This job is the same one repeatedly and only requires scaling depending on demand.

<https://m.youtube.com/watch?v=T4aAWrGHmxQ>

I'm going with B. Step functions.

upvoted 27 times

 **robertomartinez** 1 month ago

Very True step function is the de facto replacement for AWS batch which is not recommended anymore vs step functions, also another reason to vote for B is dynamo is very limited for media storage (400kb max size) hence it makes much more sense to store data in S3 and metadata in dynamo

upvoted 1 times

 **viet1991** 4 months, 3 weeks ago

Can not trigger Step Functions directly from S3 Events (Without using cloudwatch event)

upvoted 1 times

 **bobsmith2000** 1 month ago

<https://docs.aws.amazon.com/step-functions/latest/dg/tutorial-cloudwatch-events-s3.html>

upvoted 2 times

 **Ni_yot** 3 months ago

Yes you can

Step functions can be triggered in 4 ways: api gateway, cloud watch events, s3 events and step functions api

upvoted 2 times

✉ **mahdeo01** 1 week, 3 days ago

NO, ANSWER IS NOT C BUT IT IS B (i.e - STEP FUNCTION) -

Look for "Media Processing " under Use Cases left hand & then to the end of the page with title " Build a serverless video transcoding pipeline using Amazon MediaConvert".

In this amazon article has explained the exact steps with a Picture at the bottom of the page explaining how this all works.

So final answer is (B) :

Just a note : It can be done with Soln C except that that is an old way of doing it.

upvoted 4 times

✉ **mahdeo01** 1 week, 3 days ago

REF : Link >>> <https://aws.amazon.com/step-functions/use-cases/>

(For my point above)

upvoted 1 times

✉ **crazyaboutazure** 2 weeks, 2 days ago

Has to be B as several tasks to be performed and serverless functionality is required to handle the spike at any time which Step Functions have as they are serverless workflows. I think this would be the most appropriate solution here.

upvoted 2 times

✉ **haroldhil220** Highly Voted 4 months, 3 weeks ago

B

The first use case in this link:

<https://aws.amazon.com/step-functions/use-cases/>

upvoted 22 times

✉ **Kopa** 2 months, 1 week ago

at the link it says its must be triggered to lambda before Step Functions, so maybe it should be C.

upvoted 2 times

✉ **Honeysingh** 4 months, 2 weeks ago

thanks for the link B is the answer

upvoted 1 times

✉ **kauls** 4 months, 3 weeks ago

thannks for link

upvoted 1 times

✉ **Manumj** Most Recent 1 week, 1 day ago

ITS VERY SIMPLE IN ALL OPTIONS EXCEPT B DATA IS STORED ON DYNAMO DB , WHICH IS WRONG AS DYNAMO DB CANNOT STORE AN OBJECT GREATER THAN 400 KB , AND ONLY IN OPTION B THE DYNAMO D I USED TO STORE META DATA

upvoted 1 times

✉ **NapoleonBorntoparty** 2 weeks, 1 day ago

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/NotificationHowTo.html>

S3 only sends notifications to Lambda/SNS/SQS not Step Functions

I believe C is OK

upvoted 2 times

✉ **vamshidhara** 1 week, 3 days ago

True C is the answer

upvoted 1 times

✉ **francisco_guerra** 1 month ago

Yes you can trigger step functions with S3 so the answer will be B

<https://docs.aws.amazon.com/solutions/latest/constructs/aws-s3-step-function.html>

"This construct uses Amazon EventBridge (Amazon CloudWatch Events) to trigger AWS Step Functions. EventBridge is more flexible, but triggering Step Functions with S3 Event Notifications has less latency and is more cost-effective. If cost and/or latency is an issue, you should consider deploying aws-s3-lambda and aws-lambda-stepfunctions in place of this construct."

upvoted 2 times

✉ **ExamExpert82** 1 month, 2 weeks ago

The answer is B. Pay attention to the keyword "a multi-step process" to create thumbnails, identify objects in the images, transcode videos into standard formats and resolutions, and extract and store the metadata to an Amazon DynamoDB table.

upvoted 2 times

✉ **ssSsEclipse** 2 months ago

AWS Batch is a no go! Using Lambda with S3 is a event driven design, AWS Batch is for running tasks for a batch request or in a batch mode, are you going to run a batch job for each file uploaded every time? This completely defeats the definition of what BATCH means.

upvoted 2 times

✉ **KK_uniq** 2 months, 1 week ago

B for sure.

Excellent question
upvoted 1 times

✉ **jkwek** 2 months, 1 week ago

Answer is C.
Reason is you can see lambda as the first function in the url and its pictures way before the step functions.
<https://aws.amazon.com/step-functions/use-cases/>
upvoted 1 times

✉ **EarlBrillantes061816** 2 months, 3 weeks ago

<https://aws.amazon.com/step-functions/use-cases/>
Very good item. Exact use case from the question. Answer step function
upvoted 1 times

✉ **jgmcse** 2 months, 3 weeks ago

The only way to process or detect a S3 object using AWS STEP is using 'eventbridge' and creating a rule, and then EventRule launch AWS Step. So, correct is C:
upvoted 2 times

✉ **syu31svc** 2 months, 4 weeks ago

"multi-step process" -> Lambda Step Functions to be used

B is the answer to me
upvoted 1 times

✉ **Ni_yot** 3 months ago

My ans is B. Its ideal for coordinating session based applications. You can use it to coordinate all of the steps in a checkout process. See step functions use case online
upvoted 1 times

✉ **kenzerozero** 3 months ago

can't find the right answer;:::
A; definitely no... no scaling
B; seems okay, but you still need lambda function to trigger and process it
C; AWS seems overkill as it mentioned, process started every time image is uploaded.. So you don't need hundreds/thousands jobs just to process 1 image. Plus only metadata is stored in dynamodb
D: might work, but not serverless
upvoted 1 times

✉ **Yogi** 3 months, 2 weeks ago

Ans = B
multi-step process = SFW
upvoted 1 times

✉ **Yogi** 3 months, 2 weeks ago

Step Functions, not SFW
upvoted 1 times

✉ **Andy85** 4 months, 1 week ago

I think the answer is B

In this link you see this use case sometimes using the same words that uses the question, the only part missing is the lambda Triggering Step function, but this can be done from the app.
Link: <https://aws.amazon.com/es/step-functions/use-cases/>

The option C is valid but we don't need to load the object data to Dynamo, we need to load the metadata.
upvoted 4 times

✉ **lovelylone** 2 months ago

Thus why the answer is B !
upvoted 1 times

✉ **Sam82** 4 months, 1 week ago

B is the correct answer.
<https://aws.amazon.com/step-functions/use-cases/>
upvoted 3 times

Question #253

Topic 1

A company provides an API to its users that automates inquiries for tax computations based on item prices. The company experiences a larger number of inquiries during the holiday season only that cause slower response times. A solutions architect needs to design a solution that is scalable and elastic.

What should the solutions architect do to accomplish this?

- A. Provide an API hosted on an Amazon EC2 instance. The EC2 instance performs the required computations when the API request is made.
- B. Design a REST API using Amazon API Gateway that accepts the item names. API Gateway passes item names to AWS Lambda for tax computations.
- C. Create an Application Load Balancer that has two Amazon EC2 instances behind it. The EC2 instances will compute the tax on the received item names.
- D. Design a REST API using Amazon API Gateway that connects with an API hosted on an Amazon EC2 instance. API Gateway accepts and passes the item names to the EC2 instance for tax computations.

Correct Answer: B

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. This isn't a scalable and elastic option.
- B. Sounds about right, Api Gateway is scalable, and elastic, same as Lambda.
- C. How is this elastic? We need an ASG.
- D. It doesn't have elasticity or scalability.

upvoted 30 times

 **CloudK** Highly Voted 7 months, 2 weeks ago

Ans B.
upvoted 13 times

 **KK_uniq** Most Recent 2 months, 1 week ago

B for sure

easy question
upvoted 2 times

 **theEngineer** 2 months, 4 weeks ago

B seems correct
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

"scalable and elastic" -> serverless

B fits the bill; API Gateway and Lambda
upvoted 1 times

 **bleble00001** 6 months, 2 weeks ago

"scalable and elastic"? Oh, baloney! :D Made my day...
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBBBBB
upvoted 5 times

 **venh123** 6 months, 4 weeks ago

Definitely B
upvoted 1 times

 **aguy9** 6 months, 4 weeks ago

Yes I agree, answer B is the only one where all elements are scalable and elastic
upvoted 1 times

 **suku555** 6 months, 4 weeks ago

Needs to improve response time + Scalable and elastic => Amazon API Gateway + AWS Lambda. Option B is the correct answer
upvoted 1 times

 **DarthYoda** 7 months, 2 weeks ago

Definitely B
upvoted 9 times

Question #254

Topic 1

An application is running on an Amazon EC2 instance and must have millisecond latency when running the workload. The application makes many small reads and writes to the file system, but the file system itself is small.

Which Amazon Elastic Block Store (Amazon EBS) volume type should a solutions architect attach to their EC2 instance?

- A. Cold HDD (sc1)
- B. General Purpose SSD (gp2)
- C. Provisioned IOPS SSD (io1)
- D. Throughput Optimized HDD (st1)

Correct Answer: B

Reference:

<https://aws.amazon.com/blogs/database/best-storage-practices-for-running-production-workloads-on-hosted-databases-with-amazon-rds-or-amazon-ec2/>

✉  **etu2022** Highly Voted 7 months, 2 weeks ago

C :

SSD-backed volumes include the highest performance Provisioned IOPS SSD (io2 and io1) for latency-sensitive transactional workloads and General Purpose SSD (gp2) that balance price and performance for a wide variety of transactional data. HDD-backed volumes include Throughput Optimized HDD (st1) for frequently accessed, throughput intensive workloads and the lowest cost Cold HDD (sc1) for less frequently accessed data.

upvoted 22 times

✉  **crazyaboutazure** 2 weeks, 2 days ago

B as GP2 has millisecond latency and are smaller in size than Provisioned 1 TiB where Prov are min 4 TiB

upvoted 2 times

✉  **yass18** Highly Voted 7 months, 2 weeks ago

C - High performance SSD volume designed for latency-sensitive transactional workloads

upvoted 15 times

✉  **charlpl** Most Recent 4 days, 20 hours ago

B requires milisecond and not SUB-milisecond
<https://aws.amazon.com/ebs/features/>

upvoted 2 times

✉  **awsmov** 3 weeks ago

B should be correct. You don't need io1(better for I/O-intensive workload) for this purpose. gp2 is enough.

upvoted 1 times

✉  **rutvijdasadia** 3 weeks, 1 day ago

io2 is usually used for fast processing and transaction and is used for SAP, Oracle, etc. GP2 also provides single millisecond latency + 100 IOPS is bare minimum and hence, for small disk size/file systems it is useful. GP2 is correct.

upvoted 1 times

✉  **kanchannag25** 1 month, 1 week ago

General Purpose SSD (gp2) volumes deliver single-digit millisecond latencies and the ability to burst to 3,000 IOPS for extended periods of time.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html>

Ans: GP2

upvoted 3 times

✉  **bubai01** 1 month, 2 weeks ago

C : The key points highlighted a: Millisec Latency b : Many reads n writes c: small filesystem.

MilliSec & Many Reads Writes needs SSD but as filesystem size is small GP2 might not be sufficient as GP2 IOP/s scales with size unlike provisioned IOP/s

upvoted 6 times

✉  **andras** 2 months, 1 week ago

The performance of gp2 volumes is tied to volume size

Provisioned IOPS SSD volumes use a consistent IOPS rate,

I think the key could be that the size of the volume is small, so gp2 might not reach the needed IOPs rate -> C

upvoted 2 times

✉  **jkwek** 2 months, 1 week ago

Answer is B.

I saw another url which related more to question:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html#EBSVolumeTypes_gp2
upvoted 4 times

 **jkwek** 2 months, 1 week ago

Answer is C:
Reason is Provisioned IOPS SSD caters to Workloads that require sub-millisecond latency, and sustained IOPS performance or more than 64,000 IOPS or 1,000 MiB/s of throughput as in the table at url
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html>
upvoted 2 times

 **Kopa** 2 months, 3 weeks ago

i will go for B, since it is saying application not database and also ms not sub ms.
refer to <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html>
upvoted 2 times

 **NSF2** 2 months, 3 weeks ago

The answer is surely B
As per the table in the below link.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html>
upvoted 3 times

 **syu31svc** 2 months, 4 weeks ago

I would take B

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html#EBSVolumeTypes_gp2:
"General Purpose SSD (gp2) volumes offer cost-effective storage that is ideal for a broad range of workloads. These volumes deliver single-digit millisecond latencies and the ability to burst to 3,000 IOPS for extended periods of time"
upvoted 3 times

 **Yogi** 3 months, 2 weeks ago

Ans = B b/c both io1 and gp2 both offer millisecond latencies.
<https://aws.amazon.com/ebs/faqs/>
upvoted 2 times

 **Rupesh1987** 2 weeks, 2 days ago

but gp2 is limited to its size. Minimum 100 iops and after volume *3 . In question it is explicitly mentioned about volume wouldn't be big.
upvoted 1 times

 **waqas** 3 months, 2 weeks ago

B is the correct answer. 2 Keywords -- Filesize is small and millisecond latency. (not sub-millisecond as in IOPS SSD)
upvoted 6 times

 **Nguyen** 3 months, 3 weeks ago

I got this question on Feb 26, 2021 and I chose C, not sure correctly;
upvoted 1 times

 **r8ish** 4 months ago

it has to be between B and C
ssd(gp2) volume size (1GB and 16TB)
ssd(io1) volume size (4GB to 16TB)

considering this i think this is B
upvoted 1 times

Question #255

A solutions architect is designing a multi-Region disaster recovery solution for an application that will provide public API access. The application will use Amazon EC2 instances with a userdata script to load application code and an Amazon RDS for MySQL database. The Recovery Time Objective (RTO) is 3 hours and the Recovery Point Objective (RPO) is 24 hours.

Which architecture would meet these requirements at the LOWEST cost?

- A. Use an Application Load Balancer for Region failover. Deploy new EC2 instances with the userdata script. Deploy separate RDS instances in each Region.
- B. Use Amazon Route 53 for Region failover. Deploy new EC2 instances with the userdata script. Create a read replica of the RDS instance in a backup Region.
- C. Use Amazon API Gateway for the public APIs and Region failover. Deploy new EC2 instances with the userdata script. Create a MySQL read replica of the RDS instance in a backup Region.
- D. Use Amazon Route 53 for Region failover. Deploy new EC2 instances with the userdata script for APIs, and create a snapshot of the RDS instance daily for a backup. Replicate the snapshot to a backup Region.

Correct Answer: D

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

- A. Application Load Balancer is region based, so this ain't right.<https://aws.amazon.com/elasticloadbalancing/>
- B. We can use Route 53 for a Region failover, but, why create a read replica? we need a snapshot.
- C. Sounds fishy using a read replica again.
- D. Sounds about right, we create a snapshot of the RDS instance, and replicate the snapshot for a backup Region.

upvoted 35 times

✉  **aguy9** 6 months, 4 weeks ago

Yep I agree, D is the cheapest and it mentions taking an RDS snapshot every 24 hours

upvoted 3 times

✉  **sctmp** 7 months, 2 weeks ago

Looking at this, and answering the question for the lowest cost:

<https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-with-amazon-rds/>

I'm sticking with D. It's cheaper, since we're doing it manual.

upvoted 5 times

✉  **CloudK** Highly Voted 7 months, 2 weeks ago

If I understand correctly, read replicas can be done in multiple regions, but they are not a suitable backup tool but are only used to improve performance. Then you delete the B and C.

Application Load Balancer works only within a region then you delete the A.

D is correct.

upvoted 13 times

✉  **sctmp** 7 months, 2 weeks ago

Sounds about right.

upvoted 1 times

✉  **vamshidhara** Most Recent 3 days, 15 hours ago

BBBBBBBBBBBBBBB

Replicating backup snapshot on daily basis to other region is not cost effective solution so D is wrong

upvoted 1 times

✉  **lc76262** 3 weeks, 4 days ago

D is wrong. For example, if you take a snapshot at 1 AM tomorrow and there is a disaster while your snapjob was running. You only have the previous day's backup (more than 24 hours ago). You cannot obviously meet the RPO of 24 hours in this scenario. For experienced DBAs, snapshots are not sufficient to restore a database because you need the redo logs for recovery.

upvoted 1 times

✉  **shantest1** 3 weeks, 3 days ago

I think RPO - 24 hours means, you are OKAY to lose 24 hours of data, so D makes sense.

RTO - 3 hours though

upvoted 1 times

✉  **lc76262** 3 weeks, 4 days ago

D is wrong logically due to "RTO = 3 hours and RPO is 24 hours." If you only backup your database once a day, it might take some time plus the time to recover, the RPO of 24 hours will not be met. To meet the RPO of 24 hours, you need to backup at least twice daily. Moreover, copying a snapshot of the entire database will cost more in bandwidth than the smaller changes to the database for the replica.

upvoted 1 times

 **Jonycici** 2 months, 3 weeks ago

B is correct.

You use read replicas to improve performance, not mainly for DR.

RTO is the key here, 24 hours.

upvoted 1 times

 **Jonycici** 2 months, 3 weeks ago

RPO i meant

upvoted 1 times

 **Jonycici** 2 months, 3 weeks ago

I meant D is correct

upvoted 1 times

 **occupatissimo** 2 months, 4 weeks ago

but if i'm not wrong between regions a snapshot must be copied, not replicated.

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

I would pick D

<https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-with-amazon-rds/>:
Table displayed shows read replicas having the highest cost for recovery

A is not cost effective ("Deploy separate RDS instances in each Region")

B and C are out since read replicas are used

upvoted 3 times

 **EarlBrillantes061816** 4 months, 1 week ago

Base on lowest cost. It's D in the official matrix of AWS

<https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-with-amazon-rds/>

upvoted 4 times

 **NSF** 4 months, 2 weeks ago

As per below;

<https://aws.amazon.com/blogs/aws/cross-region-read-replicas-for-amazon-rds-for-mysql/>

You can now create cross-region read replicas for Amazon RDS database instances!

This feature builds upon our existing support for read replicas that reside within the same region as the source database instance. You can now create up to five in-region and cross-region replicas per source with a single API call or a couple of clicks in the AWS Management Console. We are launching with support for version 5.6 of MySQL.

upvoted 1 times

 **vsmahesh** 5 months ago

B and D serve the purpose. But D is the most cost effective.

The data transferred for cross-Region replication incurs Amazon RDS data transfer charges. These cross-Region replication actions generate charges for the data transferred out of the source AWS Region. And for each data modification made in the source databases, Amazon RDS transfers data from the source AWS Region to the read replica AWS Region.

upvoted 2 times

 **Hungdv** 6 months, 1 week ago

D. Lowest cost

upvoted 1 times

 **softabu** 6 months, 1 week ago

Ans B. That will achieve RTO of 3 hours compared to the snapshot backup and recovery in D.

upvoted 2 times

 **Dominick80** 6 months, 1 week ago

It's D, reason being lowest cost.

upvoted 1 times

 **kimalto452** 6 months, 2 weeks ago

Answer is B, you can use read replica for recovery

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html

upvoted 1 times

 **kimalto452** 6 months, 2 weeks ago

Implementing failure recovery – YOU CAN USE READ REPLICA promotion as a data recovery scheme if the primary DB instance fails. This approach complements synchronous replication, automatic failure detection, and failover.

upvoted 1 times

 **JobinAkaJoe** 6 months, 2 weeks ago

D - This gives cheapest DR solution to meet required RPO and RTO using RDS snapshot which is much cheaper than read-replica or separate RDS instance.

upvoted 1 times

Question #256

Topic 1

A solutions architect needs to ensure that all Amazon Elastic Block Store (Amazon EBS) volumes restored from unencrypted EBC snapshots are encrypted.

What should the solutions architect do to accomplish this?

- A. Enable EBS encryption by default for the AWS Region.
- B. Enable EBS encryption by default for the specific volumes.
- C. Create a new volume and specify the symmetric customer master key (CMK) to use for encryption.
- D. Create a new volume and specify the asymmetric customer master key (CMK) to use for encryption.

Correct Answer: C

Reference:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#volume-account-off>

✉  **kuman** Highly Voted  5 months, 3 weeks ago

People! it has to be A!! Question asked is to ensure that ALL volumes restored are encrypted. So have to be "Enable encryption by default". Read here: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#encryption-by-default>

upvoted 21 times

✉  **zxing233** 3 weeks ago

try your self at AWS console. create volume--> encrypt this volume--> select master key

upvoted 1 times

✉  **stephenphyo** 5 months, 3 weeks ago

That is correct. Although, option C is also true, you have to enable encryption for individual volume created from the unencrypted snapshot. When encryption by default is enabled, all volumes created from the unencrypted snapshots are automatically encrypted using the default encryption key, and if this key is to be replaced, a new symmetric CMK can be specified.

Ref: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

upvoted 1 times

✉  **Omar66** Highly Voted  7 months ago

We can both specify an automatic encryption on the region scope or do it manually on a ebs instance level, at creation.

Here the question states that we want to ENSURE that ALL the instances are encrypted. This can only be done by enabling encryption on the region. During that step we have to specify an encryption key anyway (just like C). The difference is that its done automatically for you for all subsequent instance creation.

My answer is A

upvoted 13 times

✉  **Dewutopia** 5 months, 3 weeks ago

This is the correct answer. Keyword is "ensure". C is a manual process.

upvoted 3 times

✉  **Omar66** 7 months ago

Here you are found it :)

[#](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#volume-account-on)

upvoted 4 times

✉  **andwill1001** Most Recent  1 week, 5 days ago

There's a major confirmation bias problem on these questions. If you find one link that supports your answer ensure that you are also looking up the other answers. One may have an even BETTER reason for being the answer.

upvoted 1 times

✉  **Jonycici** 2 months, 3 weeks ago

AAAAAAAAAAAAAAAAAAAAA

upvoted 3 times

✉  **syu31svc** 2 months, 4 weeks ago

[#](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#volume-account-off)

Figure provided supports C as the answer

upvoted 1 times

✉  **syu31svc** 2 months, 2 weeks ago

Changing to A after reading the other comments and links

upvoted 2 times

✉  **dmscounterera** 3 months, 1 week ago

A for sure

<https://aws.amazon.com/premiumsupport/knowledge-center/ebs-automatic-encryption/>

upvoted 1 times

 **Yogi** 3 months, 2 weeks ago

Ans = C

b/c symmetric is best for AWS users. External users must defer to asymmetric key.

upvoted 1 times

 **NSF** 4 months ago

Looking at the information in the below link, it must be A

<https://aws.amazon.com/premiumsupport/knowledge-center/ebs-automatic-encryption/>

upvoted 1 times

 **hlex** 4 months, 1 week ago

AAAAAAAAAAAAA

upvoted 1 times

 **Sam82** 4 months, 1 week ago

Answer is C

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

Encrypt unencrypted resources

Although there is no direct way to encrypt an existing unencrypted volume or snapshot, you can encrypt them by creating either a volume or a snapshot. If you enabled encryption by default, Amazon EBS encrypts the resulting new volume or snapshot using your default key for EBS encryption. Even if you have not enabled encryption by default, you can enable encryption when you create an individual volume or snapshot. Whether you enable encryption by default or in individual creation operations, you can override the default key for EBS encryption and select a symmetric customer managed CMK

upvoted 8 times

 **CCNPWILL** 4 months, 1 week ago

A. You can in fact enable EBS encryption by default for the AWS Region, sounds about right.

<https://aws.amazon.com/premiumsupport/knowledge-center/ebs-automatic-encryption/>

upvoted 2 times

 **GplXtreme** 4 months ago

Read your link: Enabling encryption by default has no effect on the encryption status of your existing volumes. ANS is C

upvoted 2 times

 **DerekKey** 3 months ago

We don't need to encrypt existing volumes. What we need to do is to ensure that all Amazon Elastic Block Store (Amazon EBS) volumes --> restored from unencrypted EBC snapshots are encrypted<--.

upvoted 3 times

 **CCNPWILL** 4 months, 2 weeks ago

Short Description. New Amazon EBS volumes aren't encrypted by default. However, there is a setting in the Amazon Elastic Compute Cloud (Amazon EC2) console that turns on encryption by default for all new Amazon EBS volumes and snapshot copies created within a specified Region.Nov 21, 2019

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

Answer A

upvoted 2 times

 **vsmahesh** 5 months ago

A:

<https://docs.aws.amazon.com/cli/latest/reference/ec2/enable-ebs-encryption-by-default.html>

upvoted 4 times

 **e0wynn** 5 months ago

A - encryption by default is sufficient for the question as it asks to encrypt ALL EBS volumes (including future ones). Unless you want to encrypt just one volume with your own CMK then you would choose C but this question is worded requesting for ongoing all EBS volumes restored from unencrypted snapshot.

Scroll down to encryption by default

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#volume-account-on>

upvoted 4 times

 **elvancedonzy** 5 months, 1 week ago

Answer is C

Encrypt unencrypted resources

Although there is no direct way to encrypt an existing unencrypted volume or snapshot, you can encrypt them by creating either a volume or a snapshot. If you enabled encryption by default, Amazon EBS encrypts the resulting new volume or snapshot using your default key for EBS encryption. Even if you have not enabled encryption by default, you can enable encryption when you create an individual volume or snapshot. Whether you enable encryption by default or in individual creation operations, you can override the default key for EBS encryption and select a symmetric customer managed CMK. For more information, see Create an Amazon EBS volume and Copy an Amazon EBS snapshot.

Ref - <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#encrypt-unencrypted>

upvoted 2 times

 **shetoshandasa** 5 months, 1 week ago

Based on the fact that the administrator needs to "ensure ", which means that no need to pass y the encryption process every time we restore an unencrypted volume, then better to globally enable the encryption for EC2.
So, the right answer is A

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#encryption-examples>

upvoted 1 times

 **Elias23** 5 months, 2 weeks ago

I think A because is saying to ENSURE and NOT to create ...
So we need to enable the encryption by default in the Region-specific setting

upvoted 4 times

 **Elias23** 5 months, 2 weeks ago

D : out
Amazon EBS does not support asymmetric CMKs. For more information, see Using symmetric and asymmetric keys in the AWS Key Management Service Developer Guide.

upvoted 1 times

Question #257

A company runs a static website through its on-premises data center. The company has multiple servers that handle all of its traffic, but on busy days, services are interrupted and the website becomes unavailable. The company wants to expand its presence globally and plans to triple its website traffic.

What should a solutions architect recommend to meet these requirements?

- A. Migrate the website content to Amazon S3 and host the website on Amazon CloudFront.
- B. Migrate the website content to Amazon EC2 instances with public Elastic IP addresses in multiple AWS Regions.
- C. Migrate the website content to Amazon EC2 instances and vertically scale as the load increases.
- D. Use Amazon Route 53 to distribute the loads across multiple Amazon CloudFront distributions for each AWS Region that exists globally.

Correct Answer: D

 **sctmp** Highly Voted 7 months, 3 weeks ago

This one is a freebie, should A.

upvoted 47 times

 **Reddywin3k** Highly Voted 7 months ago

A it is : Cloud front can host static websites as per below snippet.

Snippet from AWS documentation :

Description: Amazon CloudFront is a global Content Delivery Network (CDN), which will host your website on a global network of edge servers, helping users load your website more quickly. When requests for your website content come through, they are automatically routed to the nearest edge location, closest to where the request originated from, so your content is delivered to your end user with the best possible performance.

upvoted 7 times

 **Deyemzy** Most Recent 4 days, 13 hours ago

DDDDDD

upvoted 1 times

 **arkandi** 1 month, 4 weeks ago

AAAAAAAAAA

Static => S3

upvoted 2 times

 **lovelrone** 2 months ago

Answer A

<https://aws.amazon.com/getting-started/hands-on/deliver-content-faster/>

upvoted 1 times

 **Akwex** 2 months ago

D looks plausible.

CloudFront is a content delivery network service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment. Had it been the answer made reference to hosting the website on S3, that would have made sense.

upvoted 1 times

 **cachac** 2 months ago

Keywords: static website, on-premises, globally.

Answer D

A. Cloudfront can't HOST, just caches content.

B. C. Irrelevant

D. Route 53 + CloudFront (on premise origin)

<https://aws.amazon.com/cloudfront/faqs/>

Q. Does Amazon CloudFront work with non-AWS origin servers?

Yes. Amazon CloudFront works with any origin server that holds the original, definitive versions of your content, both static and dynamic. There is no additional charge to use a custom origin.

upvoted 1 times

 **ismai1** 3 days, 10 hours ago

that's why on A they propose the migration to S3 first,

A is correct

upvoted 2 times

 **lamrandom** 3 weeks, 3 days ago

While you are technically true about Cloudfront can't host, it's worth noting that Cloudfront is global and has no region... so D it's even more senseless than A.

Ans = A

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

A for sure.

Easy question

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

100% is A

upvoted 3 times

 **Yogi** 3 months, 2 weeks ago

D is a foul answer.

Ans = A; S3 & CF is like peanut butter & jelly (complimentary).

upvoted 5 times

 **CCNPWILL** 4 months, 1 week ago

no brainer. A

upvoted 3 times

 **EarlBrillantes061816** 4 months, 3 weeks ago

We are making things complicated. simply we just need to migrate the static website from on prem to s3 hosting and use cloudfront for the global presence due to its edge locations.

upvoted 2 times

 **Danny_Choi** 4 months, 4 weeks ago

Company already runs multiple servers. Why don't we make the most of these devices? Then, additionally CloudFront distributions and Route 53 in the front would do an excellent work.

upvoted 2 times

 **Bidu** 6 months, 1 week ago

All the answers is wrong...Should be removed from the exam !!!

upvoted 3 times

 **JobinAkaJoe** 6 months, 2 weeks ago

Both A & D are missing clarity to be a conclusive answer.

A seems to be more relevant.

upvoted 7 times

 **bleble00001** 6 months, 2 weeks ago

Note to Moderator: I have accidentally FLAGGED this comment. Please ignore my flag. This comment is VERY RELEVANT, hence I have upvoted it already.

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 5 times

 **Kpjan19** 6 months, 3 weeks ago

For Static website , the option is more close to A. Hosting the website in Cloudfront must be pointing the domain to cloudfront,

upvoted 1 times

Question #258

Topic 1

A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it. The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete. The company has asked a solutions architect to design a scalable and cost-effective solution that meets the requirements of the job.

What should the solutions architect recommend?

- A. Implement EC2 Spot Instances.
- B. Purchase EC2 Reserved Instances.
- C. Implement EC2 On-Demand Instances.
- D. Implement the processing on AWS Lambda.

Correct Answer: A

 **sctmp** Highly Voted  7 months, 3 weeks ago

A. Job can be started and stopped at any given time with no negative impact. Perfect scenario.

upvoted 43 times

 **aguy9** 6 months, 4 weeks ago

Yep A. Definitely

upvoted 2 times

 **Israel** 7 months, 2 weeks ago

@SCTMP, you rock. I like your comments and analysis.

upvoted 9 times

 **yogen** Highly Voted  4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked A i.e Spot instances

upvoted 16 times

 **syu31svc** Most Recent  2 months, 4 weeks ago

"can be started and stopped at any given time" -> Flexible workloads so Spot instances

Answer is A 100%

upvoted 4 times

 **Yogi** 3 months, 3 weeks ago

batch processing=spot instances

Ans=A

upvoted 1 times

 **dineshc** 4 months, 1 week ago

Spot Instances are a cost-effective choice if you can be flexible about when your applications run and if your applications can be interrupted. For example, Spot Instances are well-suited for data analysis, batch jobs, background processing, and optional tasks

upvoted 2 times

 **AVINASH_AWS** 6 months ago

Answer D .

This is Lambda.. Stateless /Scalable/Cost effective

upvoted 1 times

 **robsonchirara** 4 months, 3 weeks ago

No. That is extremely wrong.

upvoted 3 times

 **AWSGeeeeeeK** 6 months ago

Wrong Lambda can't run more than 15 minutes (for the moments haha)

upvoted 12 times

 **Bbm2020** 6 months, 2 weeks ago

you can use all Spot Instances for any STATELESS, non-production application, such as development and test servers, where occasional downtime is acceptable.

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 5 times

 **suku555** 6 months, 4 weeks ago

Answer is A. Spot instances are cost effective and the question has "stop/start has no negative impact"

upvoted 1 times

 **mark_af** 7 months ago

A. No negative impact if EC2 jobs are stopped...

upvoted 2 times

 **venh123** 7 months, 1 week ago

A seems to be the correct answer.

upvoted 2 times

 **DarthYoda** 7 months, 2 weeks ago

Free marks here, A is the answer

upvoted 5 times

Question #259

Topic 1

A company is hosting its static website in an Amazon S3 bucket, which is the origin for Amazon CloudFront. The company has users in the United States, Canada, and Europe and wants to reduce costs.

What should a solutions architect recommend?

- A. Adjust the CloudFront caching time to live (TTL) from the default to a longer timeframe.
- B. Implement CloudFront events with Lambda@Edge to run the website's data processing.
- C. Modify the CloudFront price class to include only the locations of the countries that are served.
- D. Implement a CloudFront Secure Sockets Layer (SSL) certificate to push security closer to the locations of the countries that are served.

Correct Answer: C

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. This could be an option, since static content won't change that much.
- B. It's a static website, there is no processing.
- C. Sounds about right. <https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>
- D. What does an SSL have to do with reducing costs?

upvoted 30 times

 **aguy9** 6 months, 4 weeks ago

Yes agreed, the answer is definitely C. As per the link below " A third price class includes only the least expensive regions (the United States, Canada, and Europe regions)." <https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>

upvoted 8 times

 **jy00271070** Highly Voted 7 months, 2 weeks ago

100% C:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>

upvoted 15 times

 **syu31svc** Most Recent 2 months, 4 weeks ago

<https://aws.amazon.com/cloudfront/pricing/>:

"Price classes provide you an option to lower the prices you pay to deliver content out of Amazon CloudFront"

".Price Classes let you reduce your delivery prices by excluding Amazon CloudFront's more expensive edge locations from your Amazon CloudFront distribution."

C is the answer

upvoted 2 times

 **Yogi** 3 months, 2 weeks ago

Ans = C

<https://aws.amazon.com/cloudfront/pricing/>

upvoted 1 times

 **DoktaDee** 3 months, 4 weeks ago

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>

Well elaborated

Ans C

upvoted 1 times

 **Sam82** 4 months, 1 week ago

Answer is C

CloudFront edge locations are grouped into geographic regions, and we've grouped regions into price classes. The default price class includes all regions. Another price class includes most regions (the United States; Canada; Europe; Hong Kong, Philippines, South Korea, Taiwan, and Singapore; Japan; India; South Africa; and Middle East regions) but excludes the most expensive regions. A third price class includes only the least expensive regions (the United States, Canada, and Europe regions).

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>

upvoted 3 times

 **algreat** 4 months, 2 weeks ago

Vote for C

upvoted 1 times

 **Atanu_M** 4 months, 2 weeks ago

Folks a question to you guys who are going for C. Amazon Cloud Front charges based on region not by price class. And some regions are costly like India where as US / Mexico & Canada is the cheapest. (<https://aws.amazon.com/cloudfront/pricing/>) Now in this case the customer base is already within the cheapest priced regions so moving to the cheapest price class - will it serve any cost optimisation ?

Ofcourse A seems to be not the answer as CF to S3 as origin data transfer charge seems to free (<https://aws.amazon.com/cloudfront/pricing/>)
upvoted 1 times

✉ **qurren** 5 months ago

C is correct.
For A, please note that data transfer from S3 origin to Edge location is free! So more caching will not help on cost
upvoted 1 times

✉ **Twinkie** 2 weeks, 2 days ago

While C is probably the correct answer and what you say is also true, increasing the TTL will also reduce the amount of requests that will reach the s3 origin thus reducing the s3 outbound traffic costs.
That's why A isn't a completely off answer as well.

upvoted 1 times

✉ **Sierrabravo** 5 months, 1 week ago

C

reason: <http://harish11g.blogspot.com/2013/04/Amazon-Web-Services-AWS-Cost-Saving-Tips-Amazon-Cloudfront-Price-class.html>
upvoted 1 times

✉ **kimalto452** 6 months, 2 weeks ago

cccccccccccc
<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>
upvoted 1 times

✉ **anpt** 6 months, 3 weeks ago

CCCCCCCCCC
upvoted 1 times

✉ **suku555** 6 months, 4 weeks ago

Answer is C. We can use third price class which covers the regions US, Canada & Europe (least expensive regions) to reduce the cost
upvoted 2 times

✉ **mlammy76** 7 months ago

Definitely C - <https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>
upvoted 3 times

✉ **spring21** 7 months, 1 week ago

C is correct . CloudFront has edge locations all over the world. Our cost for each edge location varies and, as a result, the price that we charge you varies depending on the edge location from which CloudFront serves your requests.

CloudFront edge locations are grouped into geographic regions, and we've grouped regions into price classes. The default price class includes all regions. Another price class includes most regions (the United States; Canada; Europe; Hong Kong, Philippines, South Korea, Taiwan, and Singapore; Japan; India; South Africa; and Middle East regions) but excludes the most expensive regions. A third price class includes only the least expensive regions (the United States, Canada, and Europe regions).

upvoted 6 times

✉ **massyg** 7 months, 1 week ago

A can be OK.
But I think that C is better...
<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>
upvoted 1 times

✉ **julian_58** 7 months, 1 week ago

A or C?
upvoted 1 times

✉ **theCreatorSD** 1 week ago

C.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/PriceClass.html>
upvoted 1 times

Question #260

Topic 1

A company is planning to migrate a commercial off-the-shelf application from its on-premises data center to AWS. The software has a software licensing model using sockets and cores with predictable capacity and uptime requirements. The company wants to use its existing licenses, which were purchased earlier this year.

Which Amazon EC2 pricing option is the MOST cost-effective?

- A. Dedicated Reserved Hosts
- B. Dedicated On-Demand Hosts
- C. Dedicated Reserved Instances
- D. Dedicated On-Demand Instances

Correct Answer: C

 **sadhou2004** Highly Voted 7 months, 3 weeks ago

Correct Ans : A
upvoted 22 times

 **Irivera** Highly Voted 7 months, 1 week ago

Answer is A:
requirement is "software has a software licensing model using sockets and cores"
dedicated-hosts = visibility of sockets and physical cores

You have visibility of the number of sockets and physical cores that support your instances on a Dedicated Host. You can use this information to manage licensing for your own server-bound software that is licensed per-socket or per-core.
see link below
<https://aws.amazon.com/ec2/dedicated-hosts/>

upvoted 21 times

 **Luckylively1** Most Recent 2 weeks, 3 days ago

correct Ans : A
Amazon EC2 Dedicated Hosts allow you to use your eligible software licenses from vendors such as Microsoft and Oracle on Amazon EC2, so that you get the flexibility and cost effectiveness of using your own licenses, but with the resiliency, simplicity and elasticity of AWS. An Amazon EC2 Dedicated Host is a physical server fully dedicated for your use, so you can help address corporate compliance requirements.

<https://aws.amazon.com/ec2/dedicated-hosts/>
upvoted 2 times

 **Prench** 3 weeks ago

A, I don't understand why the solution is C, who is checking the exam out ?
upvoted 1 times

 **leliodesouza** 2 months, 3 weeks ago

The correct answer is A.
upvoted 3 times

 **syu31svc** 2 months, 4 weeks ago

<https://aws.amazon.com/ec2/dedicated-hosts/>:
"Amazon EC2 Dedicated Hosts allow you to use your eligible software licenses from vendors such as Microsoft and Oracle on Amazon EC2, so that you get the flexibility and cost effectiveness of using your own licenses, but with the resiliency, simplicity and elasticity of AWS"
C and D are therefore out

Between A and B, reserved is going to be cheaper for sure

Answer is A
upvoted 5 times

 **Yogi** 3 months, 3 weeks ago

Use dedicated hosts, not dedicated instance(s). Plus, predictable capacity=reserved.
Ans=A
upvoted 2 times

 **admin1** 3 months, 4 weeks ago

Correct Ans : A
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/dedicated-hosts-overview.html>
upvoted 3 times

liquen14 4 months, 1 week ago

FAQs are always a better source of information in my opinion

<https://aws.amazon.com/ec2/dedicated-hosts/faqs/>

upvoted 2 times

rlandire 4 months, 1 week ago

Visibility of sockets and cores is only possible with dedicated hosts. See the comparison at the end of the page

<https://aws.amazon.com/ec2/dedicated-hosts/>

upvoted 1 times

AVINASH_AWS 6 months ago

Dedicated Hosts allow you to use your existing per-socket, per-core, or per-VM software licenses, including Windows Server, SQL Server, SUSE Linux Enterprise Server, Red Hat Enterprise Linux, or other software licenses that are bound to VMs, sockets, or physical cores, subject to your license terms. This helps you to save money by leveraging your existing investments. Learn more about your Windows licensing options.

upvoted 3 times

bleble00001 6 months, 2 weeks ago

This clears out some grey areas between the two.

<https://www.privoit.com/resources/dedicated-hosts-and-instances-whats-the-difference>

upvoted 2 times

anpt 6 months, 3 weeks ago

AAAAAAAAAAAAAA

upvoted 4 times

anpt 6 months, 3 weeks ago

AAAAAAAAAAAAAAAAAAAAAAA

upvoted 2 times

aguy9 6 months, 4 weeks ago

Agreed, correct answer is A.

upvoted 1 times

suku555 6 months, 4 weeks ago

Answer is A. Whenever we see the requirement "Licensing with sockets/core" in the Q, we can choose 'Dedicated Reserved Hosts'

upvoted 4 times

mission1 7 months ago

A definitely, given that it has to deal with licensing, a dedicated host will always give you the best compliance

upvoted 2 times

Question #261

Topic 1

A company is designing a website that uses an Amazon S3 bucket to store static images. The company wants all future requests to have faster response times while reducing both latency and cost.

Which service configuration should a solutions architect recommend?

- A. Deploy a NAT server in front of Amazon S3.
- B. Deploy Amazon CloudFront in front of Amazon S3.
- C. Deploy a Network Load Balancer in front of Amazon S3.
- D. Configure Auto Scaling to automatically adjust the capacity of the website.

Correct Answer: B

Reference:

<https://aws.amazon.com/getting-started/hands-on/deliver-content-faster/>

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

- A. What does a NAT server have to do with S3?
- B. Sounds about right.
- C. What?
- D. What? x2

upvoted 36 times

✉  **Ash_c02** 1 month ago

hahaha :D

B for sure

upvoted 1 times

✉  **Wordeur** 6 months, 3 weeks ago

It's crazy the difference in difficulty between two questions !

upvoted 3 times

✉  **KK_uniq** Most Recent 2 months, 1 week ago

B for sure

upvoted 1 times

✉  **syu31svc** 2 months, 4 weeks ago

101% is B

upvoted 1 times

✉  **Yogi** 3 months, 3 weeks ago

Ans is B

upvoted 1 times

✉  **CCNPWILL** 4 months, 2 weeks ago

Answer is B.. i swear these new questions are easier than the first set.

upvoted 2 times

✉  **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBBBB

upvoted 3 times

✉  **aguy9** 6 months, 4 weeks ago

Yep B is correct

upvoted 1 times

✉  **suku555** 6 months, 4 weeks ago

Answer is B . Keywords are static content on S3 and Faster response

upvoted 1 times

✉  **DarthYoda** 7 months, 2 weeks ago

Definitely B

upvoted 1 times

✉  **CloudK** 7 months, 2 weeks ago

B. Deploy Amazon CloudFront in front of Amazon S3.

upvoted 1 times

Question #262

Topic 1

A company has an on-premises MySQL database used by the global sales team with infrequent access patterns. The sales team requires the database to have minimal downtime. A database administrator wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users in the future.

Which service should a solutions architect recommend?

- A. Amazon Aurora MySQL
- B. Amazon Aurora Serverless for MySQL
- C. Amazon Redshift Spectrum
- D. Amazon RDS for MySQL

Correct Answer: A

Reference:

<https://aws.amazon.com/premiumsupport/knowledge-center/migrate-mysql-rds-dms/>

✉ **sadhou2004** Highly Voted 7 months, 3 weeks ago

Correct Ans B , with A you still have to choose the instance type
upvoted 25 times

✉ **Elliea** 8 hours, 42 minutes ago

" without selecting a particular instance type in anticipation of more users in the future."
The answer is A.
upvoted 1 times

✉ **sctmp** Highly Voted 7 months, 3 weeks ago

B. "A database administrator wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users in the future" Serverless sounds right, and it's compatible with MySQL and PostgreSQL.
upvoted 18 times

✉ **MohitGupta** Most Recent 5 days, 23 hours ago

Answer should be "A". As Aurora has zero downtime while Aurora serverless has downtime of about 30 seconds.
upvoted 1 times

✉ **Xfo** 5 days, 12 hours ago

"with infrequent access patterns.." is always Aurora Serverless..
upvoted 1 times

✉ **skanda** 1 week, 1 day ago

Ans is B
upvoted 1 times

✉ **vamshidhara** 1 week, 3 days ago

B
Because of infrequent access pattern
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.how-it-works.html>
upvoted 1 times

✉ **Cyyz** 2 weeks, 2 days ago

Examtopics Admin- Could you please make sure the answers are correctly selected, starting a bit to lose confidence in this site!
upvoted 2 times

✉ **Supreeth** 2 weeks, 1 day ago

Agree. The moderator should update the answers to such questions so that people will not start losing confidence.
upvoted 2 times

✉ **soundarya_vs** 2 weeks, 4 days ago

Here it is mentioned as selecting without any particular instance right which means still instance is going to be there for sure. So answer will be A right?
upvoted 1 times

✉ **jexam211** 2 weeks, 5 days ago

What's the difference between Amazon Aurora Serverless for MySQL and Amazon Aurora MySQL ?
upvoted 1 times

✉ **cianal** 1 week, 1 day ago

First one is serverless and the other is not. You will have to provision resources.

upvoted 1 times

 **bluetaurianbull** 1 month, 3 weeks ago

What about "requires the database to have minimal downtime" ?? does Aurora Serverless (B) also address this requirement?

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

B for sure

upvoted 1 times

 **jkwek** 2 months, 1 week ago

Answer is B.

<https://aws.amazon.com/rds/aurora/serverless/>

upvoted 2 times

 **ansh18061986** 2 months, 1 week ago

I will go with 'B' , Since question clearly mentions not to choose any instance i.e. they want server less.

upvoted 2 times

 **leliodesouza** 2 months, 3 weeks ago

The answer is B.

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

<https://aws.amazon.com/rds/aurora/serverless/>

Answer is B

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Aurora serverless is the give-away.

Ans=B

upvoted 1 times

 **remy** 4 months, 1 week ago

answer is B!

upvoted 2 times

 **yogen** 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked B i.e Aurora Serverless

upvoted 16 times

Question #263

Topic 1

A company needs to comply with a regulatory requirement that states all emails must be stored and archived externally for 7 years. An administrator has created compressed email files on premises and wants a managed service to transfer the files to AWS storage. Which managed service should a solutions architect recommend?

- A. Amazon Elastic File System (Amazon EFS)
- B. Amazon S3 Glacier
- C. AWS Backup
- D. AWS Storage Gateway

Correct Answer: D

Reference:

<https://aws.amazon.com/storagegateway/faqs/>

 **sctmp** Highly Voted 7 months, 3 weeks ago

I take that back, it says it wants a managed service to transfer the files to AWS storage. The only one here is AWS Storage Gateway.
upvoted 41 times

 **mahdeo01** 1 week, 2 days ago

After checking some documentation on AWS backup, I have come to a conclusion that the answer is - Storage Gateway. (Because as per the AWS documentation, You can not use AWS Backup to backup on Prem servers. In case you want to use it, you will have to go through Storage Gateway!!! Check Hybrid Backup section in this document link >> <https://aws.amazon.com/backup/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>)
upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

Storage Gateway is correct i agree
upvoted 3 times

 **CCNPWILL** 4 months, 2 weeks ago

EXACTLY. Read entire question before answering. i thought the same until i went to the end XD.
upvoted 3 times

 **aguy9** 6 months, 3 weeks ago

Yeah this was tricky. But yep they need a managed service to transfer files.
upvoted 1 times

 **GogoRomX** 5 months, 2 weeks ago

I don't agree, also AWS Backup is a managed service. See here:
<https://aws.amazon.com/backup/>
Moreover, who will bring and archive the already compressed files that are on prem? Only with AWS Backup you can do it. The requirement is "transfer the files", not to manage the files on cloud, and then archive them for 7 years. So my answer is C.
upvoted 1 times

 **GogoRomX** 5 months, 1 week ago

No, AWS Backup doesn't take his input from on-prem. So the answer is definitely D.
upvoted 1 times

 **ansh18061986** Most Recent 2 months, 1 week ago

Correct answer is 'D'. Because , question asks about the transfer service and NOT the storage service , AWS Storage gateway is the only one transfer service in options.

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

"managed service to transfer the Files to AWS storage"

Answer is D

upvoted 1 times

 **Oz3006** 3 months, 1 week ago

the questions says to transfer not to store, so to me is D
upvoted 1 times

 **rakku** 4 months, 1 week ago

D : AWS storage gateway.
only one option which supports on prem
upvoted 1 times

✉️ **fidaforever** 5 months, 3 weeks ago

Q. An administrator has created compressed email files on premises and wants a managed service to transfer the files to AWS storage.

Ans: Within all options, Only the (D) Storage Gateway can manage to transfer files.

upvoted 2 times

✉️ **prem4bio** 6 months ago

D is the answer

Storage Gateway supports three key hybrid cloud use cases – (1) Move backups and archives to the cloud, (2) Reduce on-premises storage with cloud-backed file shares, and (3) Provide on-premises applications low latency access to data stored in AWS.

upvoted 3 times

✉️ **Hungdv** 6 months, 1 week ago

This question is not clear

upvoted 1 times

✉️ **DrCloud** 5 months, 2 weeks ago

Given Requirements:

(a) all emails must be stored and archived externally for 7 years.

(b) compressed email files "on premises"

ASK:

a "managed service to transfer the files" to AWS storage.

Ans:

D. Storage Gateway

upvoted 2 times

✉️ **Bbm2020** 6 months, 2 weeks ago

My take is D

<https://aws.amazon.com/storagegateway/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

upvoted 1 times

✉️ **anpt** 6 months, 3 weeks ago

DDDDDDDDDDDDDDDDDDDD

upvoted 3 times

✉️ **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBBBB

upvoted 1 times

✉️ **CCNPWILL** 4 months, 2 weeks ago

Answer is D for storage. its HOW

upvoted 3 times

✉️ **KALRAV** 6 months, 3 weeks ago

managed service to transfer, not to store, hence D - AWS Storage Gateway

upvoted 1 times

✉️ **suku55** 6 months, 4 weeks ago

Answer should be D.AWS Storage gateway which is a AWS managed service to TRANSFER the files to AWS storage

upvoted 1 times

✉️ **TonyHa** 7 months ago

S3 is object storage matches compressed email files

"Glacier is for archive" matches archived externally for 7 years

Answer should be B

A & D for frequently access data => don't need this for archive data

upvoted 1 times

✉️ **mark_af** 7 months ago

D. Storage Gateway

upvoted 1 times

✉️ **venh123** 7 months, 1 week ago

D seems to be correct

upvoted 1 times

✉️ **DarthYoda** 7 months, 2 weeks ago

Definitely D

upvoted 2 times

Question #264

Topic 1

A company has hired a new cloud engineer who should not have access to an Amazon S3 bucket named CompanyConfidential. The cloud engineer must be able to read from and write to an S3 bucket called AdminTools.

Which IAM policy will meet these requirements?

A.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Action": "s3>ListBucket",  
            "Resource": "arn:aws:s3:::AdminTools"  
        },  
        {  
            "Effect": "Allow",  
            "Action": [ "s3:GetObject", "s3:PutObject" ],  
            "Resource": "arn:aws:s3:::AdminTools/*"  
        },  
        {  
            "Effect": "Deny",  
            "Action": "s3:*",  
            "Resource": [  
                "arn:aws:s3:::CompanyConfidential/*",  
                "arn:aws:s3:::CompanyConfidential"  
            ]  
        }  
    ]  
}
```

B.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Action": "s3>ListBucket",  
            "Resource": [  
                "arn:aws:s3:::AdminTools",  
                "arn:aws:s3:::CompanyConfidential/*"  
            ]  
        },  
        {  
            "Effect": "Allow",  
            "Action": [ "s3:GetObject", "s3:PutObject", "s3>DeleteObject" ],  
            "Resource": "arn:aws:s3:::AdminTools/*"  
        },  
        {  
            "Effect": "Deny",  
            "Action": "s3:*",  
            "Resource": "arn:aws:s3:::CompanyConfidential"  
        }  
    ]  
}
```

C.

```

{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*",
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::CompanyConfidential"
      ]
    }
  ]
}
D.
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3>ListBucket",
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject", "s3>DeleteObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential",
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::AdminTools/*"
      ]
    }
  ]
}

```

Correct Answer: C

✉  **cryogenic007**  2 months, 1 week ago

Here is a proper explanation on why option A is correct.

The policy is separated into two parts because the ListBucket action requires permissions on the bucket while the other actions require permissions on the objects in the bucket. You must use two different Amazon Resource Names (ARNs) to specify bucket-level and object-level permissions. The first Resource element specifies arn:aws:s3:::AdminTools for the ListBucket action so that applications can list all objects in the AdminTools bucket.

Without seeing the bucket you can't read anything from it (or) put anything into it.

upvoted 10 times

✉  **Twinkie** 2 weeks, 2 days ago

You don't need listing access to delete an object using CLI, Rest API and so on if you know the object name therefore A is not needed and C is best for least access.

upvoted 1 times

✉  **koala1** 3 weeks, 1 day ago

<https://aws.amazon.com/blogs/security/writing-iam-policies-how-to-grant-access-to-an-amazon-s3-bucket/>

upvoted 1 times

✉  **lc76262** 3 weeks, 4 days ago

Option A lacks the permission to overwrite existing objects, which will require s3>DeleteObject + s3:PutObject, which is the only way to edit the objects you owned.

upvoted 1 times

✉ **lamrandom** 3 weeks, 3 days ago

You sure you require DeleteObject or it's just a speculation?

upvoted 1 times

✉ **developer_404** Highly Voted 2 months, 2 weeks ago

Answer is C, exact match

Answer A wrong. It is adding one more action - listobject which is not specified in the question. They asked for read and write which is get and put for the AdminTools.

upvoted 6 times

✉ **theCreatorSD** 6 days, 23 hours ago

Do you mean that you can read and write without list to s3 bucket?

upvoted 1 times

✉ **lc76262** Most Recent 3 weeks, 4 days ago

B is closer to meeting the requirements. It has GetObject for reading, PutObject for writing new objects, DeleteObject for cleaning up only his own objects, and DeleteObject + PutObject for editing his objects. The last paragraph also denied him all S3 actions to the CompanyConfidential bucket and any objects inside it. <https://aws.amazon.com/blogs/security/writing-iam-policies-grant-access-to-user-specific-folders-in-an-amazon-s3-bucket/>

upvoted 1 times

✉ **Kopa** 2 months, 1 week ago

I agree A, because it needs listing. See link below:

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_examples_s3_rw-bucket.html

upvoted 5 times

✉ **lovelone** 2 months ago

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_examples_s3_rw-bucket-console.html

upvoted 3 times

✉ **KK_uniq** 2 months, 1 week ago

A is ok

upvoted 1 times

✉ **jkwek** 2 months, 1 week ago

Answer is C. However, without list files, how the user choose which to read and write ?

upvoted 3 times

✉ **leliodesouza** 2 months, 3 weeks ago

The answer is A.

upvoted 1 times

✉ **syu31svc** 2 months, 4 weeks ago

I would take A

B is wrong as there is a delete action allowed on AdminTools which is not what the qn wants

C is wrong as it is missing out on the read action on AdminTools

D is wrong as it ends up denying all actions on AdminTools

upvoted 5 times

✉ **Ni_yot** 3 months, 1 week ago

Yes A seems correct. List get and put on s3 bucket. Deny to the confidential file. dont forget the /* too

upvoted 3 times

✉ **waqas** 3 months, 1 week ago

A to me.

upvoted 2 times

✉ **Elshahaly** 3 months, 1 week ago

the Answer is A

upvoted 2 times

✉ **dmscounterera** 3 months, 1 week ago

A seems to be the one

upvoted 4 times

Question #265

Topic 1

A company that hosts its web application on AWS wants to ensure all Amazon EC2 instances, Amazon RDS DB instances, and Amazon Redshift clusters are configured with tags. The company wants to minimize the effort of configuring and operating this check.

What should a solutions architect do to accomplish this?

- A. Use AWS Config rules to define and detect resources that are not properly tagged.
- B. Use Cost Explorer to display resources that are not properly tagged. Tag those resources manually.
- C. Write API calls to check all resources for proper tag allocation. Periodically run the code on an EC2 instance.
- D. Write API calls to check all resources for proper tag allocation. Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code.

Correct Answer: A

Reference:

<https://d1.awsstatic.com/whitepapers/aws-tagging-best-practices.pdf>

 **yogen** Highly Voted 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked A i.e. AWS Config check
upvoted 25 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

A is correct.
upvoted 14 times

 **AhLong** Most Recent 1 day, 13 hours ago

A is correct!
upvoted 1 times

 **lovelone** 2 months ago

Its A, take a look how to configure AWS config with required-tags
<https://docs.aws.amazon.com/config/latest/developerguide/required-tags.html>
upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

<https://docs.aws.amazon.com/config/latest/developerguide/required-tags.html>

Answer is A
upvoted 1 times

 **AJ007** 6 months, 1 week ago

Can't it be D ?
<https://aws.amazon.com/blogs/security/how-to-automatically-tag-amazon-ec2-resources-in-response-to-api-events/>
upvoted 1 times

 **yogen** 4 months, 3 weeks ago

this could have been the answer if option had included the configuration(automatic tagging) of the EC2, RDS instances. As far as its about running ONLY the check to identify which of these resources are not properly tagged AWS Config is the best Service. Hence Answer is A.
upvoted 3 times

 **Bbm2020** 6 months, 2 weeks ago

A.
<https://docs.aws.amazon.com/config/latest/developerguide/evaluate-config.html>
upvoted 5 times

 **CloudMania** 2 months, 2 weeks ago

Thanks. This link is worth reading!
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAAA
upvoted 5 times

 **aguy9** 6 months, 3 weeks ago

Yes A is correct
upvoted 2 times

 **DarthYoda** 7 months, 2 weeks ago

Definitely A
upvoted 2 times

 **CloudK** 7 months, 2 weeks ago

A. Use AWS Config rules to define and detect resources that are not properly tagged.

upvoted 6 times

Question #266

Topic 1

A company has a live chat application running on its on-premises servers that use WebSockets. The company wants to migrate the application to AWS.

Application traffic is inconsistent, and the company expects there to be more traffic with sharp spikes in the future.

The company wants a highly scalable solution with no server maintenance nor advanced capacity planning.

Which solution meets these requirements?

- A. Use Amazon API Gateway and AWS Lambda with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for provisioned capacity.
- B. Use Amazon API Gateway and AWS Lambda with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for on-demand capacity.
- C. Run Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for on-demand capacity.
- D. Run Amazon EC2 instances behind a Network Load Balancer in an Auto Scaling group with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for provisioned capacity.

Correct Answer: B

 **FeatheredandDeadly** Highly Voted 7 months, 3 weeks ago

Answer is B.
EC2 cannot be correct as question states "no server maintenance"
upvoted 28 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

B sounds about right. <https://aws.amazon.com/blogs/aws/amazon-dynamodb-on-demand-no-capacity-planning-and-pay-per-request-pricing/>
upvoted 17 times

 **Veny** Most Recent 2 weeks, 3 days ago

B, is a flexibility capacity mode for dynamo-db, also serving thousands of request per sec without requiring capacity planning..
upvoted 2 times

 **KK_uniq** 2 months, 1 week ago

B for sure
upvoted 2 times

 **jkwek** 2 months, 1 week ago

B is ok.
<https://aws.amazon.com/api-gateway/>
The keyword is "on demand"
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

"scalable solution with no server maintenance nor advanced capacity planning"

Go serverless with Lambda and API Gateway
On-demand capacity for no planned capacity

Answer is B
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B
<https://aws.amazon.com/blogs/compute/announcing-websocket-apis-in-amazon-api-gateway/>
<https://aws.amazon.com/blogs/aws/amazon-dynamodb-on-demand-no-capacity-planning-and-pay-per-request-pricing/>
upvoted 2 times

 **rakku** 4 months, 1 week ago

because they need Serverless its Lambda...and they mentioned they dont need advanced capacity hence on demand..
so answer is B
upvoted 1 times

 **algreat** 4 months, 2 weeks ago

Answer B
upvoted 1 times

 **CountryGent** 4 months, 2 weeks ago

B indeed. "highly scalable solution with no server maintenance"

upvoted 1 times

 **yogen** 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked B

upvoted 6 times

 **VVC** 5 months ago

Definitely the answer is B

upvoted 2 times

 **anpt** 6 months, 3 weeks ago

BBBBBBBBBBBBBBB

upvoted 3 times

 **aguy9** 6 months, 3 weeks ago

Yes it's B. No capacity planning Needed with DynamoDB on demand

upvoted 2 times

 **TonyHa** 7 months ago

Question states "...solution with no server maintenance..." hence C & D (EC2s) are eliminated

"...traffic is inconsistent..." => "on-demand capacity."

Answer should be B

upvoted 3 times

 **oshk** 7 months, 1 week ago

Initially thought it was C as the question mentioned "web sockets" but api gateway can be used:

<https://aws.amazon.com/blogs/compute/announcing-websocket-apis-in-amazon-api-gateway/>. So I too think the answer is B

upvoted 3 times

 **JobinAkaJoe** 6 months, 2 weeks ago

Thanks for the link. I too had the same thought that web-sockets are not supported by API-Gateway/Lambda. B should be the correct answer

upvoted 1 times

 **aesr10** 2 months, 2 weeks ago

Same over here. Thank Oshk

upvoted 1 times

 **massyg** 7 months, 1 week ago

I think B.

"The company wants a highly scalable solution with no server maintenance nor advanced capacity planning"

upvoted 3 times

Question #267

Topic 1

A company hosts its static website content from an Amazon S3 bucket in the us-east-1 Region. Content is made available through an Amazon CloudFront origin pointing to that bucket. Cross-Region replication is set to create a second copy of the bucket in the ap-southeast-1 Region. Management wants a solution that provides greater availability for the website.

Which combination of actions should a solutions architect take to increase availability? (Choose two.)

- A. Add both buckets to the CloudFront origin.
- B. Configure failover routing in Amazon Route 53.
- C. Create a record in Amazon Route 53 pointing to the replica bucket.
- D. Create an additional CloudFront origin pointing to the ap-southeast-1 bucket.
- E. Set up a CloudFront origin group with the us-east-1 bucket as the primary and the ap-southeast-1 bucket as the secondary.

Correct Answer: BE

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html

- A. Wrong, one bucket has been added as origin already.
- B. We're not using Route 53.
- C. We're not using Route 53.
- D. Correct, we have to add the new bucket as an origin.
- E. We setup a CloudFront origin group with us-east-1 bucket and ap-southeast-1 as the secondary.

upvoted 39 times

✉  **dzenadcu** 6 months, 1 week ago

Excellent answer!

It's D&E: https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html

upvoted 8 times

✉  **noahsark** 3 months, 3 weeks ago

i think this diagram shows D and E:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/images/oringroups-overview.png>

upvoted 6 times

✉  **DarthYoda** 7 months, 2 weeks ago

whew I didnt know this, thanks

D&E it is

upvoted 5 times

✉  **jainrishwin** Highly Voted 7 months, 2 weeks ago

DE

https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html

upvoted 7 times

✉  **Deyemzy** Most Recent 4 days, 13 hours ago

why are we using Route 53? B is wrong. IMO

D&E are the correct answers

upvoted 1 times

✉  **Abdullah777** 2 months, 3 weeks ago

as it mention "combination" not which "scenarios will work", I am going with ED.

upvoted 2 times

✉  **leliodesouza** 2 months, 3 weeks ago

D&E are true.

upvoted 2 times

✉  **syu31svc** 2 months, 4 weeks ago

https://docs.aws.amazon.com/cloudfront/latest/APIReference/API_OriginGroup.html:

"An origin group includes two origins (a primary origin and a second origin to failover to) and a failover criteria that you specify"

This supports E

https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html:

"You can set up CloudFront with origin failover for scenarios that require high availability. To get started, you create an origin group with two

origins: a primary and a secondary. If the primary origin is unavailable, or returns specific HTTP response status codes that indicate a failure, CloudFront automatically switches to the secondary origin.

To set up origin failover, you must have a distribution with at least two origins. Next, you create an origin group for your distribution that includes two origins, setting one as the primary."

This supports D
upvoted 2 times

 **Ni_yot** 3 months ago

D and E. You dont need R53 if using CF failover since the primary replicates to the secondary. Whe the primary is unavailable the CF fails over to secondary
upvoted 3 times

 **Aki110** 3 months, 1 week ago

If using route 53 then B and C would work
If not Route 53 then D and E work

But B and E are a weird combo. Halfof solution using Route 53 and half using Cloudfont
upvoted 1 times

 **Ajits** 3 months ago

B and E as Cloud front Origins can be either an S3 bucket, an EC2 instance, an Elastic Load Balancer or Route 53.
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Answer: D & E
upvoted 1 times

 **ismai1** 4 months, 1 week ago

i go for A,E
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html
upvoted 1 times

 **algreat** 4 months, 2 weeks ago

D&E is true
upvoted 1 times

 **CountryGent** 4 months, 2 weeks ago

B&E was my first guess until I saw "COMBINATION". D&E indeed.
upvoted 3 times

 **softarts** 4 months, 3 weeks ago

I like BE, D make no sense, it has to be a origin group
upvoted 1 times

 **anpt** 6 months, 3 weeks ago

DDDDDDDDDDDEEEEEEEEEE
upvoted 3 times

 **aguy9** 6 months, 3 weeks ago

D and E "You can set up CloudFront with origin failover for scenarios that require high availability. To get started, you create an origin group with two origins: a primary and a secondary."
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/high_availability_origin_failover.html
upvoted 3 times

 **Sparks026** 7 months ago

Final answer: options D & E.
First you create an additional CloudFront and add the ap-southeast-1.
Secondly, you setup a CloudFront origin group with us-east-1as the primary and ap-southeast-1 as the secondary.
upvoted 4 times

 **VinceL88** 7 months, 2 weeks ago

We need to choose a combination that works, so it is B and D. If we use E, then B is not needed. But D doesn't do health check like B.
upvoted 3 times

Question #268

A company hosts a training site on a fleet of Amazon EC2 instances. The company anticipates that its new course, which consists of dozens of training videos on the site, will be extremely popular when it is released in 1 week. What should a solutions architect do to minimize the anticipated server load?

- A. Store the videos in Amazon ElastiCache for Redis. Update the web servers to serve the videos using the ElastiCache API.
- B. Store the videos in Amazon Elastic File System (Amazon EFS). Create a user data script for the web servers to mount the EFS volume.
- C. Store the videos in an Amazon S3 bucket. Create an Amazon CloudFront distribution with an origin access identity (OAI) of that S3 bucket. Restrict Amazon S3 access to the OAI.
- D. Store the videos in an Amazon S3 bucket. Create an AWS Storage Gateway file gateway to access the S3 bucket. Create a user data script for the web servers to mount the file gateway.

Correct Answer: C

 **sctmp** Highly Voted 7 months, 3 weeks ago

- A. We would have to store the videos on an RDS, not sure if that would be suitable.....
- B. How does this help minimize the anticipated server load?
- C. Sounds about right, the best option probably.
- D. We're not running anything on premise.

Any inputs.

upvoted 38 times

 **yogen** Highly Voted 4 months, 3 weeks ago

I cleared the exam today on 26-Jan, This question was there in the exam, I marked cloudfront and S3 combination i.e. C
upvoted 10 times

 **vamshidhara** Most Recent 1 week, 3 days ago

C

When you first set up an Amazon S3 bucket as the origin for a CloudFront distribution, you grant everyone permission to read the files in your bucket. This allows anyone to access your files either through CloudFront or using the Amazon S3 URL. CloudFront doesn't expose Amazon S3 URLs, but your users might have those URLs if your application serves any files directly from Amazon S3 or if anyone gives out direct links to specific files in Amazon S3.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html>

upvoted 1 times

 **Abdullah777** 2 months, 3 weeks ago

one thing in C I cant find reason for it "origin access identity (OAI)". why I need it where it is for limiting access to s3 bucket to a specific users? anyway there is no other valid choice.

upvoted 3 times

 **francisco_guerra** 1 month ago

You can used to allow only the ec2 access the videos and not can be accessible by the s3 url

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

C for correct

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans=A b/c caching reduces server load.

C. Restricts users from accessing resources. It doesn't control server load.

upvoted 2 times

 **waqas** 3 months, 2 weeks ago

So what about the storage???? Should be RDS in your case which is not mentioned....so better option seemz C....

upvoted 1 times

 **Shavia** 5 months, 1 week ago

should be C

upvoted 1 times

 **Eybialot** 6 months, 2 weeks ago

It is C

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

CCCCCCCCCCCCCCCCCCCCCC

upvoted 7 times

 **venh123** 6 months, 4 weeks ago

It is C.

upvoted 1 times

 **mustafa0099** 7 months, 2 weeks ago

ANS is C

upvoted 3 times

 **sctmp** 7 months, 3 weeks ago

Take a look at this link: <https://aws.amazon.com/cloudfront/streaming/>

upvoted 1 times

Question #269

Topic 1

A company runs a production application on a fleet of Amazon EC2 instances. The application reads the data from an Amazon SQS queue and processes the messages in parallel. The message volume is unpredictable and often has intermittent traffic. This application should continually process messages without any downtime.

Which solution meets these requirements MOST cost-effectively?

- A. Use Spot Instances exclusively to handle the maximum capacity required.
- B. Use Reserved Instances exclusively to handle the maximum capacity required.
- C. Use Reserved Instances for the baseline capacity and use Spot Instances to handle additional capacity.
- D. Use Reserved Instances for the baseline capacity and use On-Demand Instances to handle additional capacity.

Correct Answer: C

 **KenKenKen123** Highly Voted 7 months, 3 weeks ago

This should be D since the problem should "continually process messages without any downtime". Using spot instances above the baseline could possibly cause instance termination and thus downtime.

upvoted 30 times

 **CCNPWILL** 4 months, 2 weeks ago

Answer is D because you CAN NOT use spot instances for 'unpredictability'. good job.

upvoted 6 times

 **Kurp** 6 months ago

Question is vague as usual. It's about the most cost effective solution. the fact they mention SQS leads to a scenario when there is not enough capacity and messages are queued up. I'd go with C. The baseline instances will continue to process messages even if there are no SPOT instances available. It will take longer to process messages. THIS IS NOT DOWNTIME since the messages in the queue are still being processed. Just a delay in processing messages.

upvoted 13 times

 **Kopa** 2 months, 3 weeks ago

What about when the request from queue is huge, that moment spot is launched and unexpectedly the spot stop, what happens? To me it looks that will have downtime. So im more for D.

upvoted 1 times

 **patriktre** 3 weeks, 5 days ago

it is about processing of SQS queue and it ensures delivery of message even if spot instance stops: Resiliency: When part of your system fails, it doesn't need to take the entire system down. Message queues decouple components of your system, so if a process that is reading messages from the queue fails, messages can still be added to the queue to be processed when the system recovers. I would choose C.

upvoted 3 times

 **nimorris** 6 months, 1 week ago

There is no downtime if there is a baseline set of reserved instances, moreover no message will be lost because its SQS when some spot instances go down

upvoted 7 times

 **FeatheredandDeadly** 7 months, 3 weeks ago

Agree, answer is D.

upvoted 3 times

 **sctmp** Highly Voted 7 months, 3 weeks ago

This one sounds tricky but let's review it.

- A. Nop, we need to process messages without any downtime.
- B. It would be a waste to have instances running when there is intermittent traffic.
- C. Could be, but we can't use Spot Instances
- D. Sounds about right, even though on-demand is expensive, there can't be any downtime.

upvoted 16 times

 **Paimon** 4 months ago

How is there down time with all the baseline? Either spots or on demands will work. Spots are cheaper.....

upvoted 2 times

 **charpl** Most Recent 15 hours, 14 minutes ago

C. No downtime with SQS as the messages are queued

<https://aws.amazon.com/blogs/compute/running-cost-effective-queue-workers-with-amazon-sqs-and-amazon-ec2-spot-instances/>

upvoted 1 times

 **theCreatorSD** 6 days, 16 hours ago

What does the baseline instances mean?

upvoted 1 times

 **lalia** 1 week, 5 days ago

D

We have to process messages without any downtime

"If the instances will be used for developing and testing, or for running apps with unpredictable workloads, on-demand AWS EC2 pricing might be a better option"

<https://www.cloudhealthtech.com/blog/aws-ec2-pricing>

upvoted 1 times

 **rutvijdasadia** 3 weeks ago

As there are Reserved Instances, Application won't face downtime. Spot Instances are like half the price of On-Demand and they save a lot of costs. Processing a message is not that big of a task. Especially, intermittent traffic we use Spot.

upvoted 2 times

 **KK_uniq** 2 months, 1 week ago

D for sure.

Cost effective would be spot instances but it has to have no downtime

upvoted 2 times

 **theCreatorSD** 6 days, 16 hours ago

What does the reserved instances for baseline mean?

upvoted 1 times

 **jkwek** 2 months, 1 week ago

Answer is D. Spot means Can only be launched immediately if the Spot Request is active and capacity is available. refer url:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-spot-instances.html>

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

"without any downtime" so spot instances cannot be used; A and C are out

"intermittent traffic"

D would be a better choice than B

upvoted 2 times

 **AWSforWork** 3 months, 2 weeks ago

<https://aws.amazon.com/blogs/compute/running-cost-effective-queue-workers-with-amazon-sqs-and-amazon-ec2-spot-instances/> -- points me to "C" but again it said use it for fault tolerant ones, which this application is not, so would go for "D", any suggestions?

upvoted 1 times

 **Nguyen** 3 months, 3 weeks ago

Although I like D, but C is my final decision. First, cost-effect. Second, if spot instance is terminated, "VisibilityTimeOut" will recover the lost message

<https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-visibility-timeout.html>

"without any downtime" is covered by reserved instances

upvoted 9 times

 **spal12** 2 months, 3 weeks ago

Yes rightly said Nguyen

upvoted 1 times

 **NSF** 3 months, 4 weeks ago

I am going for D because of the following requirement.

"This application should continually process messages without any downtime"

upvoted 2 times

 **VincentZhang** 4 months, 1 week ago

Question here is in case of the spot instance down or terminated, will the job/process being run by this spot instance be continued / taken over by the baseline reserved instance? Or the SQS will reassign the job to another available instance? If yes, Ans is C, else D

upvoted 4 times

 **VincentZhang** 4 months, 1 week ago

Ans is C

upvoted 2 times

 **FrostForrest** 5 months, 1 week ago

Big reason for D,

The backend application is not stateless, it's stateful and run on EC2 instances. Question says it cannot be interrupted, so spot cannot work since it can be shutdown, even if another instance exists at that time, the workload would be lost.

upvoted 4 times

✉  **Nirbhay** 5 months, 3 weeks ago

C is the answer guys most cost-effective and we have a Reserved instance for "continuous processing"(though it will take time, but no downtime).
<https://aws.amazon.com/blogs/compute/running-cost-effective-queue-workers-with-amazon-sqs-and-amazon-ec2-spot-instances/>

upvoted 11 times

✉  **MySandy** 5 months, 4 weeks ago

D:

On-Demand Instances:

Aws recommend that you use On-Demand Instances for applications with short-term, irregular workloads that cannot be interrupted.

Spot Instances:

Spot Instances are a cost-effective choice if you can be flexible about when your applications run and if your applications can be interrupted. For example, Spot Instances are well-suited for data analysis, batch jobs, background processing, and optional tasks

upvoted 1 times

✉  **argol** 6 months ago

JUST TAKE THIS AS A CONSIDERATION:

WITH SPOT INSTANCE YOU SAVE A BIG MONEY BUT YOU HAVE TO DEAL WITH THIS:

Your Spot Instance runs until you stop or terminate it, or until Amazon EC2 interrupts it (known as a Spot Instance interruption).

When you use Spot Instances, you must be prepared for interruptions. Amazon EC2 can interrupt your Spot Instance when the Spot price exceeds your maximum price, when the demand for Spot Instances rises, or when the supply of Spot Instances decreases.

upvoted 2 times

Question #270

Topic 1

A company has a hybrid application hosted on multiple on-premises servers with static IP addresses. There is already a VPN that provides connectivity between the VPC and the on-premises network. The company wants to distribute TCP traffic across the on-premises servers for internet users.

What should a solutions architect recommend to provide a highly available and scalable solution?

- A. Launch an internet-facing Network Load Balancer (NLB) and register on-premises IP addresses with the NLB.
- B. Launch an internet-facing Application Load Balancer (ALB) and register on-premises IP addresses with the ALB.
- C. Launch an Amazon EC2 instance, attach an Elastic IP address, and distribute traffic to the on-premises servers.
- D. Launch an Amazon EC2 instance with public IP addresses in an Auto Scaling group and distribute traffic to the on-premises servers.

Correct Answer: A

 **sctmp** Highly Voted  7 months, 3 weeks ago

We're talking about Layer 4, it has to be A.

upvoted 30 times

 **DarthYoda** 7 months, 2 weeks ago

Agreed

upvoted 2 times

 **lc76262** Most Recent  3 weeks, 4 days ago

Option B is correct as per <https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>. ALB supports IP addresses as Targets (not available in NLB). IP can be either TCP or UDP. "You can load balance any application hosted in AWS or on-premises using IP addresses of the application backends as targets. This allows load balancing to an application backend hosted on any IP address and any interface on an instance."

upvoted 1 times

 **dean_uk2001** 5 days, 21 hours ago

ALB supports IP address' as targets for Direct connect and VPN.

NLB supports IP address' as targets for Direct connect only as per these documents.

<https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>

<https://aws.amazon.com/about-aws/whats-new/2017/09/elastic-load-balancing-network-load-balancer-now-supports-load-balancing-to-ip-addresses-as-targets-for-aws-and-on-premises-resources/>

May be NLB now has support for VPN too?

If so both A & B.

IF NLB still doesn't support VPN.

Answer B is ALB.

upvoted 1 times

 **nano2nd** 4 days, 13 hours ago

it does now: <https://aws.amazon.com/about-aws/whats-new/2018/09/network-load-balancer-now-supports-aws-vpn/>

upvoted 1 times

 **Kinnam** 4 days, 15 hours ago

Previously, access to Network Load Balancer from on-premises networks was only available over AWS Direct Connect. With this launch, you can access NLB over AWS VPN tunnel.

<https://aws.amazon.com/about-aws/whats-new/2018/09/network-load-balancer-now-supports-aws-vpn/>

upvoted 1 times

 **Toks2021** 1 month, 1 week ago

A

NLB is layer 4 Load Balancer.

<https://aws.amazon.com/elasticloadbalancing/network-load-balancer/>

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

"distribute TCP traffic"

Answer is A for sure

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

TLC=Ntwk LB, Ans=A

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

I meant TCP=NLB

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

Answer is A. clearly. no explanation needed. if you need one.. you shouldn't be here! study up!

upvoted 3 times

 **noahsark** 3 months, 1 week ago

OSI Layer:

https://en.wikipedia.org/wiki/Transport_layer

NLB is up to Transport Layer (TCP is included).

upvoted 1 times

 **Eybialot** 6 months, 2 weeks ago

TCP is NLB

A

upvoted 3 times

 **Bbm2020** 6 months, 2 weeks ago

AAAAAAAAAA

upvoted 1 times

 **anpt** 6 months, 3 weeks ago

AAAAAAAAAAAAAA

upvoted 2 times

 **mark_af** 7 months ago

Answer A

upvoted 1 times

 **venh123** 7 months, 1 week ago

A seems to be correct

upvoted 2 times

Question #271

Topic 1

Management has decided to deploy all AWS VPCs with IPv6 enabled. After some time, a solutions architect tries to launch a new instance and receives an error stating that there is not enough IP address space available in the subnet.

What should the solutions architect do to fix this?

- A. Check to make sure that only IPv6 was used during the VPC creation.
- B. Create a new IPv4 subnet with a larger range, and then launch the instance.
- C. Create a new IPv6-only subnet with a large range, and then launch the instance.
- D. Disable the IPv4 subnet and migrate all instances to IPv6 only. Once that is complete, launch the instance.

Correct Answer: C

✉  **DarthYoda** Highly Voted 7 months, 2 weeks ago

cannot be A, C & D as "You cannot disable IPv4 support for your VPC and subnets; this is the default IP addressing system for Amazon VPC and Amazon EC2." in no way can you just use IPv6

So the answer is B

upvoted 31 times

✉  **sctmp** Highly Voted 7 months, 3 weeks ago

This one is tricky.

- A. How can this fix the issue?
- B. This could work.
- C. This won't work since it's saying, only subnet with IPv6 since you can't disable IPv4.
- D. You can't disable IPv4 cidr.

I'm going for B, any inputs?

upvoted 23 times

✉  **CCNPWILL** 4 months, 2 weeks ago

Answer is C.

Can not disable IPV4. it is native. We SHOULD make another IPV6 range since there are so many and just continue to do the work that we soon architects will be doing.

upvoted 2 times

✉  **CCNPWILL** 4 months, 2 weeks ago

after research. change my answer to B. Typo.. ;) good work!

upvoted 10 times

✉  **Delooo** 2 months, 1 week ago

always smarting

upvoted 1 times

✉  **Kurp** 6 months ago

The smallest subnet size you can create with IPv6 is /64. Even if your name is Jeff Bezos, you won't have that many servers in your VPC.

<https://docs.aws.amazon.com/vpc/latest/userguide/get-started-ipv6.html>

"Creates a subnet with an /24 IPv4 CIDR block and a /64 IPv6 CIDR block in the VPC. The size of the IPv6 CIDR block is fixed (/64)."

upvoted 9 times

✉  **wannaaws** 7 months, 2 weeks ago

General idea is either remove existing ones or create a larger subnet.. so C sounds alright.

upvoted 1 times

✉  **dzenadcu** 6 months, 1 week ago

B is wrong because Management decided that IPv6 is the way to go. Creating an IPv4 subnet is therefore against the requirement. I'd go with C.

upvoted 2 times

✉  **Deyemzy** Most Recent 4 days, 12 hours ago

BBBBBBBBBBBB

upvoted 1 times

✉  **theCreatorSD** 6 days, 16 hours ago

There is no IPv6only VPC.

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-migrate-ipv6.html>

upvoted 1 times

 **Navya_9** 3 weeks, 6 days ago

Answer is B - This question is in Udemy Practice Tests

upvoted 2 times

 **andwill1001** 1 week, 5 days ago

Lots of people get these questions wrong. I would bank on a practice test.

upvoted 1 times

 **andwill1001** 1 week, 5 days ago

wouldn't*

upvoted 1 times

 **lovelyne** 1 month, 1 week ago

You cant extend your IPv4 to align IPv6.

IPv4 - The VPC CIDR block size can be from /16 to /28.

IPv6 - The VPC CIDR block size is fixed at /56.

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-ip-addressing.html#vpc-ipv4-ipv6-comparison>

C is the right answer.

upvoted 3 times

 **andwill1001** 1 week, 5 days ago

You can't create a IPv6 only subnet. That's not an option.

upvoted 1 times

 **SAMsc002** 1 month, 2 weeks ago

B is correct

C option that says: Set up a new IPv6-only subnet with a large CIDR range. Associate the new subnet with the VPC then launch the instance is incorrect because you need to add IPv4 subnet first before you can create an IPv6 subnet.

upvoted 1 times

 **developer_404** 2 months, 1 week ago

I did a POC, and it doesn't allow you to create vpcs without IPV4. So, it is not possible to create ipv6 subnet only, concluding B is the answer strongly.

upvoted 4 times

 **KK_uniq** 2 months, 1 week ago

B is ok

upvoted 1 times

 **jkwek** 2 months, 1 week ago

Answer is B.

My company also used IPv6 settings but stick to IPv4 ip addresses. IPv6 is just a requirement. Does not mean that you need to use IPv6 for IP addresses.

upvoted 1 times

 **ansh18061986** 2 months, 1 week ago

Am going with 'B'.

upvoted 1 times

 **massyg** 2 months, 1 week ago

B is ok

<https://cloudonaut.io/getting-started-with-ipv6-on-aws/>

"First of all, there is no IPv6-only VPC on AWS. A VPC is always IPv4 enabled, but you can optionally enable IPv6 (dual-stack)."

upvoted 1 times

 **occupatissimo** 2 months, 4 weeks ago

VPC assigns the ip-address to eth0 depending on its settings, we can have an IPV4 or IPV6 configured on eth0. Configuring VPC in dual-stack mode we only permit VPC to have both type of addressing, but which type depend on settings.

If the VPC setting "Enable auto-assign IPv6 address" is enabled then an IPV6 address is associated to eth0 of every instance created, no IPV4 is used.

Question is a little tricky because what does "Management has decided to deploy all AWS VPCs with IPv6 enabled" mean ? To enable dual-stack mode and keep on using IPV4? Or use IPV6 only?

In my opinion the "IPv6 enabled" is different than "use IPV6 or configure IPV6", so subnet are all using IPV4.

This point me to B.

upvoted 3 times

 **syu31svc** 2 months, 4 weeks ago

A and D are wrong for sure

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Subnets.html#vpc-sizing-ipv6

"For example, you create a VPC and specify that you want to associate an Amazon-provided IPv6 CIDR block with the VPC. Amazon assigns the following IPv6 CIDR block to your VPC: 2001:db8:1234:1a00::/56. You cannot choose the range of IP addresses yourself. You can create a subnet and associate an IPv6 CIDR block from this range; for example, 2001:db8:1234:1a00::/64."

I would take C
upvoted 1 times

 **sot184** 3 months, 1 week ago

"Management has decided to deploy all AWS VPCs with IPv6 enabled". This statement does not imply they want to use 100% IPv6. So the VPCs were in dual-stack mode, ran out of IPv4 IP addresses. Create a new one with a larger range. That's logical. It's B.

upvoted 1 times

 **Ni_yot** 3 months ago

Agree B. You can't have IPv6 only VPC and you can't delete IPv4 either.

upvoted 1 times

 **linuxmaster007** 3 months, 1 week ago

Answer is B. You can't disable IPv4

upvoted 2 times

 **NSF** 3 months, 4 weeks ago

it has to be C

since If you have decided to use IPv6 later you can enable it and can coexist with IPv4, however you can't delete IPv4.

upvoted 1 times

Question #272

Topic 1

A company has a build server that is in an Auto Scaling group and often has multiple Linux instances running. The build server requires consistent and mountable shared NFS storage for jobs and configurations.

Which storage option should a solutions architect recommend?

- A. Amazon S3
- B. Amazon FSx
- C. Amazon Elastic Block Store (Amazon EBS)
- D. Amazon Elastic File System (Amazon EFS)

Correct Answer: D

Reference:

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

✉  **lunamycat** Highly Voted 7 months, 3 weeks ago

D. EFS -> NFS

upvoted 18 times

✉  **cnmc** 1 day, 11 hours ago

Hijacking this comment to say something about the "new questions" that are scattered in the comments below: most of them have been added to Examtopics's SA-C002 bank (ie the one that you are using), the others are for other AWS exams. Hugely appreciate the people that took time to post them but I realized I just wasted 1 hours looking through...

upvoted 1 times

✉  **Kaps12** Most Recent 2 months, 2 weeks ago

New Question - A solution architect is designing a new workload in which AWS lambda function will access an amazon DynamoDB table. what is most secure means of granting the lambda function access to the DynamoDB table ?

- A. Create a IAM role with necessary permissions to access the DynamoDB. Assign the role to lambda function.
- B. Create Dynamo username and password and give them to developer to use in the lambda function.
- C. Create an IAM user and create access and secret keys for the user. Give the user necessary permissions to access DynamoDB table
- D. Create a IAM role allowing access from AWS Lambda

upvoted 1 times

✉  **pr** 1 month, 2 weeks ago

A is more appropriate.

upvoted 1 times

✉  **lollo1234** 2 months ago

A is more complete than D. exclude B and C

upvoted 1 times

✉  **syu31svc** 2 months, 4 weeks ago

This is D 101%

upvoted 1 times

✉  **CountryGent** 4 months, 2 weeks ago

D indeed

upvoted 1 times

✉  **sa_the_cool** 4 months, 3 weeks ago

NEW QUESTION

A company is deploying an application that processes large quantities of data in batches as needed. The company plans to use Amazon EC2 instances for the workload. The network architecture must support a highly scalable solution and prevent groups of nodes from sharing the same underlying hardware. Which combination of network solutions will meet these requirements? (Select TWO.)

- A. Create Capacity Reservations for the EC2 instances to run in a placement group.
- B. Run the EC2 instances in a spread placement group.
- C. Run the EC2 instances in a cluster placement group.
- D. Place the EC2 instances in an EC2 Auto Scaling group.
- E. Run the EC2 instances in a partition placement group.

upvoted 2 times

✉  **soundarya_vs** 1 week, 2 days ago

i think D&E in spread we can place max 7 instances per AZ but for highly scalable i think partition will be right

upvoted 1 times

✉  **mahdeo01** 1 week, 2 days ago

Answer for above question is : Spread Placement & Partition Placement as per the defination given in this document >>
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

upvoted 1 times

 **Bala1212081** 2 months ago

I think C & D

upvoted 1 times

 **VeeraB** 2 months, 1 week ago

Ans: B

upvoted 1 times

 **sa_the_cool** 4 months, 3 weeks ago

NEW QUESTION

A company has several web servers that need to frequently access a common Amazon RDS MySQL Multi-AZ DB instance. The company wants a secure method for the web servers to connect to the database while meeting a security requirement to rotate user credentials frequently. Which solution meets these requirements?

- A. Store the database user credentials in AWS Secrets Manager. Grant the necessary IAM permissions to allow the web servers to access AWS Secrets Manager.
- B. Store the database user credentials in AWS Systems Manager OpsCenter. Grant the necessary IAM permissions to allow the web servers to access OpsCenter.
- C. Store the database user credentials in a secure Amazon S3 bucket. Grant the necessary IAM permissions to allow the web servers to retrieve credentials and access the database.
- D. Store the database user credentials in files encrypted with AWS Key Management Service (AWS KMS) on the web server file system. The web server should be able to decrypt the files and access the database.

upvoted 2 times

 **Lila2A** 2 months, 2 weeks ago

A :

You can configure AWS Secrets Manager to automatically rotate the secret for a secured service or database. Secrets Manager natively knows how to rotate secrets for supported Amazon RDS databases.

upvoted 3 times

 **VincentZhang** 4 months, 1 week ago

Ans A, it is about credentials not encryption key so D opt out

upvoted 1 times

 **sa_the_cool** 4 months, 3 weeks ago

NEW QUESTION

A solutions architect is designing an architecture that includes web, application, and database tiers. The web tier must be capable of auto scaling. The solutions architect has decided to separate each tier into its own subnets. The design includes two public subnets and four private subnets. The security team requires that tiers be able to communicate with each other only when there is a business need and that all other network traffic be blocked.

What should the solutions architect do to meet these requirements?

- A. Create an Amazon Guard Duty source/destination rule set to control communication.
- B. Create one security group for all tiers to limit traffic to only the required source and destinations.
- C. Create specific security groups for each tier to limit traffic to only the required source and destinations.
- D. Create network ACLs in all six subnets to limit traffic to the sources and destinations required for the application to function.

upvoted 1 times

 **Atanu_M** 4 months ago

C: NACL is for restricting specific traffic (an IP or CIDR range) where as Security group is to allow specific traffic particularly traffic from instances with same security group. Here you want 1. Web SG to accept traffic from 80/443 from all IP and then application SG will accept traffic from Web only and DB will accept traffic from App SG only

upvoted 4 times

 **VincentZhang** 4 months, 1 week ago

I will choose D of NACL as it mentioned to block network traffic

upvoted 6 times

 **lehoang15tuoi** 1 day, 12 hours ago

Correct. To add to this answer, notice that the question already says: "The solutions architect has decided to separate each tier into its own subnets. The design includes two public subnets and four private subnets." In this case, applying SG is going to take more time and is more complicated

upvoted 1 times

 **elvancedonzy** 5 months ago

287. A solutions architect is designing a new API using Amazon API Gateway that will receive requests from users. The volume of requests is highly variable; several hours can pass without receiving a single request. The data processing will take place asynchronously, but should be completed within a few seconds after a request is made.

Which compute service should the solutions architect have the API invoke to deliver the requirements at the lowest cost?

- A. An AWS Glue job
- B. An AWS Lambda function
- C. A containerized service hosted in Amazon Elastic Kubernetes Service (Amazon EKS)
- D. A containerized service hosted in Amazon ECS with Amazon EC2

upvoted 1 times

 **93madox** 5 months ago

B is probably right choice here

upvoted 11 times

✉ **lehoang15tuoi** 1 day, 12 hours ago

It's definitely the right choice here

upvoted 1 times

✉ **elvancedonzy** 5 months ago

A company has created a multi-tier application for its ecommerce website. The website uses an Application Load Balancer that resides in the public subnets, a web tier in the public subnets, and a MySQL cluster hosted on Amazon EC2 instances in the private subnets. The MySQL database needs to retrieve product catalog and pricing information that is hosted on the internet by a third-party provider. A solutions architect must devise a strategy that maximizes security without increasing operational overhead.

What should the solutions architect do to meet these requirements?

- A. Deploy a NAT instance in the VPC. Route all the internet-based traffic through the NAT instance.
- B. Deploy a NAT gateway in the public subnets. Modify the private subnet route table to direct all internet-bound traffic to the NAT gateway.
- C. Configure an internet gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the internet gateway.
- D. Configure a virtual private gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the virtual private gateway.

upvoted 1 times

✉ **93madox** 5 months ago

B - NAT Gateway, as we want the private subnet servers to initiate connection when its needed.

upvoted 10 times

✉ **elvancedonzy** 5 months ago

A solutions architect is designing the cloud architecture for a company that needs to host hundreds of machine learning models for its users. During startup, the models need to load up to 10 GB of data from Amazon S3 into memory, but they do not need disk access. Most of the models are used sporadically, but the users expect all of them to be highly available and accessible with low latency. Which solution meets the requirements and is MOST cost-effective?

- A. Deploy models as AWS Lambda functions behind an Amazon API Gateway for each model.
- B. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind an Application Load Balancer for each model.
- C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model.
- D. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind a single Application Load Balancer with path-based routing where one path corresponds to each model.

upvoted 1 times

✉ **margz** 5 months ago

I think C

upvoted 5 times

✉ **lehoang15tuoi** 1 day, 12 hours ago

This question was posted in Jan 21 and Lambda had only increased to 10GB of memory in December 20, so I figure it wasn't written with Lambda in mind. Running hundreds of models on Lambda that use 10GB RAM is going to cost a lot, most likely more so than ECS Fargate. In practice, I have rarely (if ever) seen any company run ML models on Lambda. It's doable, but unlikely. The 15 mins run time is too limiting. I'm also quite sure that no companies want to write "hundreds of models" in Lambda. The amount of money you're going to spend on developers effort is going to be much more than any saving you could be looking at

upvoted 1 times

✉ **elvancedonzy** 5 months ago

A company has an ecommerce application that stores data in an on-premises SQL database. The company has decided to migrate this database to AWS. However, as part of the migration, the company wants to find a way to attain sub-millisecond responses to common read requests. A solutions architect knows that the increase in speed is paramount and that a small percentage of stale data returned in the database reads is acceptable.

What should the solutions architect recommend?

- A. Build Amazon RDS read replicas.
- B. Build the database as a larger instance type.
- C. Build a database cache using Amazon ElastiCache.
- D. Build a database cache using Amazon Elasticsearch Service (Amazon ES).

upvoted 1 times

✉ **qurren** 5 months ago

C for sure

upvoted 8 times

✉ **margz** 5 months ago

Agree, it's C

upvoted 2 times

✉ **elvancedonzy** 5 months ago

A company is developing an ecommerce application that will consist of a load-balanced front end, a container-based application, and a relational database. A solutions architect needs to create a highly available solution that operates with as little manual intervention as possible.

Which solutions meet these requirements? (Choose two.)

- A. Create an Amazon RDS DB instance in Multi-AZ mode.

- B. Create an Amazon RDS DB instance and one or more replicas in another Availability Zone.
 - C. Create an Amazon EC2 instance-based Docker cluster to handle the dynamic application load.
 - D. Create an Amazon Elastic Container Service (Amazon ECS) cluster with a Fargate launch type to handle the dynamic application load.
 - E. Create an Amazon Elastic Container Service (Amazon ECS) cluster with an Amazon EC2 launch type to handle the dynamic application load.
- upvoted 1 times

 **qurren** 5 months ago

I will choose A and D

upvoted 14 times

 **Kaps12** 2 months, 2 weeks ago

Why not B & D ?

upvoted 1 times

 **lehoang15tuoi** 1 day, 12 hours ago

Because "as little manual intervention as possible". B takes more management efforts than A

upvoted 1 times

 **ask2** 1 month, 2 weeks ago

multi AZ provides high availability and read replica improve performance

upvoted 1 times

 **VincentZhang** 4 months, 1 week ago

it is not a combination ans, I choose C and D

upvoted 2 times

 **sa_the_cool** 5 months, 1 week ago

Q-131

A company is using a fleet of Amazon EC2 instances to ingest data from on-premises data sources. The data is in JSON format and ingestion rates can be as high as 1 MB/s. When an EC2 instance is rebooted, the data in-flight is lost. The company's data science team wants to query ingested data in near-real time. Which solution provides near-real-time data querying that is scalable with minimal data loss?

- A. Publish data to Amazon Kinesis Data Streams. Use Kinesis Data Analytics to query the data.
- B. Publish data to Amazon Kinesis Data Firehose with Amazon Redshift as the destination. Use Amazon Redshift to query the data.
- C. Store ingested data in an EC2 instance store. Publish data to Amazon Kinesis Data Firehose with Amazon S3 as the destination. Use Amazon Athena to query the data.
- D. Store ingested data in an Amazon Elastic Block Store (Amazon EBS) volume. Publish data to Amazon ElastiCache for Redis. Subscribe to the Redis channel to query the data.

upvoted 2 times

 **dmscounterera** 3 months, 1 week ago

With Kinesis Data Analytics, you can process and query real-time, streaming data. You use standard SQL to process your data streams, so you don't have to learn any new programming languages. You just point Kinesis Data Analytics to an incoming data stream, write your SQL queries, and then specify where you want the results loaded. Kinesis Data Analytics uses the KCL to read data from streaming data sources as one part of your underlying application. The service abstracts this from you, as well as many of the more complex concepts associated with using the KCL, such as checkpointing.

A

upvoted 2 times

 **occupatissimo** 2 months, 4 weeks ago

request is for near-real time, so firehose -> B

upvoted 4 times

 **kowal_001** 1 week, 5 days ago

Amazon Kinesis Data Analytics provides built-in functions to filter, aggregate, and transform streaming data for advanced analytics. It processes streaming data with sub-second latencies, enabling you to analyze and respond to incoming data and events in real time.

upvoted 1 times

 **sa_the_cool** 5 months, 1 week ago

Q-130

A company has an on-premises MySQL database used by the global sales team with infrequent access patterns. The sales team requires the database to have minimal downtime. A database administrator wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users in the future. Which service should a solutions architect recommend?

- A. Amazon Aurora MySQL
- B. Amazon Aurora Serverless for MySQL
- C. Amazon Redshift Spectrum
- D. Amazon RDS for MySQL

upvoted 3 times

 **Miladsh** 4 months, 2 weeks ago

bbbbbbbbbb

upvoted 4 times

 **sa_the_cool** 5 months, 1 week ago

Q-129

A company runs a static website through its on-premises data center. The company has multiple servers that handle all of its traffic, but on busy days, services are interrupted and the website becomes unavailable. The company wants to expand its presence globally and plans to triple its website traffic. What should a solutions architect recommend to meet these requirements?

- A. Migrate the website content to Amazon S3 and host the website on Amazon Cloud Front.
 - B. Migrate the website content to Amazon EC2 instances with public Elastic IP addresses in multiple AWS Regions.
 - C. Migrate the website content to Amazon EC2 instances and vertically scale as the load increases.
 - D. Use Amazon Route 53 to distribute the loads across multiple Amazon CloudFront distributions for each AWS Region that exists globally.
- upvoted 3 times

 **arberod** 4 months ago

Static web site so A
upvoted 4 times

 **hlex** 4 months, 1 week ago

A -s3 and cF
upvoted 3 times

 **ensa** 4 months, 3 weeks ago

First went with A as it is static website but the second part is wrong. Host on cloud front as its route53 job.
So I will choose D
upvoted 3 times

 **occupatissimo** 2 months, 4 weeks ago

As you develop your website or application, you use the domain name that CloudFront provides for your URLs, no need to work on route53.
A is right
upvoted 1 times

 **sa_the_cool** 5 months, 1 week ago

Q-128 (part 2 of 2)

- A. Create a new public subnet with a NAT gateway in the same AZ. Distribute the traffic between the two NAT gateways.
 - B. Create an Amazon EC2 NAT instance in a new public subnet. Distribute the traffic between the NAT gateway and the NAT instance.
 - C. Create public subnets in each AZ and launch a NAT gateway in each subnet. Configure the traffic from the private subnets in each AZ to the respective NAT gateway.
 - D. Create an Amazon EC2 NAT instance in the same public subnet. Replace the NAT gateway with the NAT instance and associate the instance with an Auto Scaling group with an appropriate scaling policy.
- upvoted 1 times

 **arberod** 4 months ago

I don't know the question, but answer C
upvoted 6 times

 **examdumy22** 4 months ago

Where's part 1/2?
upvoted 1 times

 **sa_the_cool** 5 months, 1 week ago

Q-120 (part 2 of 2)

- A. Use two ALBs: one for on premises and one for the AWS resource. Add hosts to each target group of each ALB. Route with Amazon Route 53 based on the URL query string.
 - B. Use two ALBs: one for on premises and one for the AWS resource. Add hosts to the target group of each ALB. Create a software router on an EC2 instance based on the URL query string.
 - C. Use one ALB with two target groups: one for the AWS resource and one for on premises. Add hosts to each target group of the ALB. Configure listener rules based on the URL query string .
 - D. Use one ALB with two AWS Auto Scaling groups: one for the AWS resource and one for on premises. Add hosts to each Auto Scaling group. Route with Amazon Route 53 based on the URL query string.
- upvoted 1 times

 **KishanNandha** 4 months, 3 weeks ago

I think C
upvoted 5 times

 **GplXtreme** 3 months, 4 weeks ago

In order to address these use cases, Application Load Balancers can now route traffic directly to IP addresses. These addresses can be in the same VPC as the ALB, a peer VPC in the same region, on an EC2 instance connected to a VPC by way of ClassicLink, or on on-premises resources at the other end of a VPN connection or AWS Direct Connect connection. C seems to be correct.

upvoted 1 times

 **ensa** 4 months, 3 weeks ago

I will go with D.
upvoted 1 times

 **softarts** 4 months, 4 weeks ago

no idea, choose A???
upvoted 1 times

 **softarts** 4 months, 4 weeks ago

<https://aws.amazon.com/blogs/containers/how-to-use-multiple-load-balancer-target-group-support-for-amazon-ecs-to-access-internal-and-external-service-endpoint-using-the-same-dns-name/>
upvoted 1 times

Question #273

Topic 1

A company has an image processing workload running on Amazon Elastic Container Service (Amazon ECS) in two private subnets. Each private subnet uses a NAT instance for internet access. All images are stored in Amazon S3 buckets. The company is concerned about the data transfer costs between Amazon ECS and Amazon S3.

What should a solutions architect do to reduce costs?

- A. Configure a NAT gateway to replace the NAT instances.
- B. Configure a gateway endpoint for traffic destined to Amazon S3.
- C. Configure an interface endpoint for traffic destined to Amazon S3.
- D. Configure Amazon CloudFront for the S3 bucket storing the images.

Correct Answer: C

 **viet1991** Highly Voted 4 months, 2 weeks ago

B. Configure a gateway endpoint for traffic destined to Amazon S3.
Because data transfer between Amazon ECS and Amazon S3 without going out the Internet, so using S3 Gateway Endpoint is enough.
upvoted 16 times

 **CCNPWILL** Highly Voted 4 months, 2 weeks ago

B is the answer here. finished. finally. now to do it again!
upvoted 8 times

 **zxing233** Most Recent 3 weeks ago

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/privatelink-interface-endpoints.html>
upvoted 2 times

 **inverse70** 3 weeks, 6 days ago

ANS = B
upvoted 1 times

 **ansh18061986** 2 months, 1 week ago

Correct answer is 'B'. Gateway endpoint should be used for S3 and Dynamo DB.
upvoted 3 times

 **leliodesouza** 2 months, 3 weeks ago

Their answer is B.
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

<https://docs.aws.amazon.com/vpc/latest/privatelink/vpce-gateway.html#gateway-endpoint-pricing>:
"There is no additional charge for using gateway endpoints"

Answer is B
upvoted 3 times

 **Alileva** 3 months, 1 week ago

Ans: B
A gateway endpoint is for the following supported AWS services:
Amazon S3
DynamoDB
upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Configure a gateway endpoint for traffic destined to Amazon S3.
upvoted 2 times

 **brqx** 3 months, 3 weeks ago

Hi friends, I have a new question :

A reporting application runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an EC2 Auto Scaling group across multiple Availability Zones. Due to their complexity, some reports may take up to 15 minutes to respond to a request. A solutions architect is concerned that users will receive 500 errors if a report request is in process during a scale-in event. Which action will ensure that user requests are completed before instances are terminated?

- A. Enable sticky sessions for the target group of the instances
- B. Enable connection draining on the Application Load Balancer
- C. Increase the cooldown period for the Auto Scaling group to greater than 1,500 seconds

D.Increase the deregistration delay timeout for the target group of the instances to greater than 1,500 seconds

Is an official practice test question. Please help me with right answer.

Regards.

upvoted 1 times

 **Alileva** 3 months, 1 week ago

Your answer is D based on this:

<https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-target-groups.html#deregistration-delay>

upvoted 3 times

 **waqas** 3 months, 3 weeks ago

D is 100% right.

upvoted 4 times

 **AK003** 4 months, 2 weeks ago

BBBBBBBBBBBBBBBBBBB

upvoted 2 times

 **algreat** 4 months, 2 weeks ago

B is correct

upvoted 2 times

 **DrCloud** 4 months, 2 weeks ago

B. Configure a gateway endpoint

<https://aws.amazon.com/vpc/pricing/>

There is no data processing or hourly charges for using Gateway Type VPC endpoints.

upvoted 2 times

 **sasuke24124** 4 months, 2 weeks ago

b for sure

upvoted 1 times

 **CountryGent** 4 months, 2 weeks ago

B: <https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints.html>

upvoted 1 times

 **ahmedzeddini** 4 months, 2 weeks ago

B.

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints.html>

upvoted 1 times

 **toto059** 4 months, 2 weeks ago

it should B , any help

upvoted 2 times

 **toto059** 4 months, 2 weeks ago

C interface vpc end point

upvoted 1 times

 **EarlBrillantes061816** 4 months, 2 weeks ago

interface endpoint not does not support s3 and dynamodb

upvoted 7 times

 **Toks2021** 1 month, 1 week ago

Using interface endpoints to access Amazon S3 without a gateway endpoint or an internet gateway in the VPC

Interface endpoints in your VPC can route both in-VPC applications and on-premises applications to Amazon S3 over the Amazon network, as illustrated in the following diagram.

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/private-link-interface-endpoints.html>

upvoted 1 times

Question #274

Topic 1

The financial application at a company stores monthly reports in an Amazon S3 bucket. The vice president of finance has mandated that all access to these reports be logged and that any modifications to the log files be detected.

Which actions can a solutions architect take to meet these requirements?

- A. Use S3 server access logging on the bucket that houses the reports with the read and write data events and log file validation options enabled.
- B. Use S3 server access logging on the bucket that houses the reports with the read and write management events and log file validation options enabled.
- C. Use AWS CloudTrail to create a new trail. Configure the trail to log read and write data events on the S3 bucket that houses the reports. Log these events to a new bucket, and enable log file validation.
- D. Use AWS CloudTrail to create a new trail. Configure the trail to log read and write management events on the S3 bucket that houses the reports. Log these events to a new bucket, and enable log file validation.

Correct Answer: C

Reference:

<https://docs.aws.amazon.com/AmazonS3/latest/user-guide/enable-cloudtrail-events.html>

✉  **viet1991** Highly Voted 4 months, 2 weeks ago

C. AWS CloudTrail, configurate read and write data events on the S3 bucket (include API call)

Amazon S3 Server Access is wrong.

Server access logging provides detailed records for the requests that are made to a bucket. (GET, PUT, DELETE... but not include API call)
<https://docs.aws.amazon.com/AmazonS3/latest/dev/LogFormat.html>

upvoted 14 times

✉  **crazyaboutazure** 2 weeks, 2 days ago

C because CloudTrail tracks API access for infrastructure-changing events, in S3 this means creating, deleting, and modifying bucket (S3 CloudTrail docs). ... S3 Server Access Logging provides web server-style logging of access to the objects in an S3 bucket

upvoted 2 times

✉  **bluetaurianbull** 3 days, 20 hours ago

Not sure if the above statement is right. As per documentation <https://docs.aws.amazon.com/AmazonS3/latest/userguide/logging-with-S3.html>
 both AWS CloudTrail logging and S3 Server Access logging can log S3 API calls.

upvoted 1 times

✉  **NSF** Highly Voted 3 months, 4 weeks ago

C is the right answer because the question specifically asking logs for following events.
 Access, modifications and deletions which are all DATA EVENTS.

Data Events:

The following data types are recorded:

- Amazon S3 object-level API activity (for example, GetObject, DeleteObject, and PutObject API operations)
- AWS Lambda function execution activity (the Invoke API)

<https://docs.aws.amazon.com/awscloudtrail/latest/userguide/logging-data-events-with-cloudtrail.html>

In contrast the management events are as follow.

Configuring security (for example, IAM AttachRolePolicy API operations)

Registering devices (for example, Amazon EC2 CreateDefaultVpc API operations)

Configuring rules for routing data (for example, Amazon EC2 CreateSubnet API operations)

Setting up logging (for example, AWS CloudTrail CreateTrail API operations)

upvoted 7 times

✉  **bluetaurianbull** Most Recent 3 days, 20 hours ago

Confused between A and C. The two possible reasons (C) could be an answer is because

1. Server access logs don't record information about wrong-region redirect errors for Regions that launched after March 20, 2019. Wrong-region redirect errors occur when a request for an object or bucket is made outside the Region in which the bucket exists.
 URL:- <https://docs.aws.amazon.com/AmazonS3/latest/userguide/ServerLogs.html>

2. We recommend that you use AWS CloudTrail for logging bucket and object-level actions for your Amazon S3 resources.
 URL :- <https://docs.aws.amazon.com/AmazonS3/latest/userguide/logging-with-S3.html>

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

This is C 100%

upvoted 3 times

 **waqas** 3 months ago

NEW QUESTION

A company is deploying an application that processes large quantities of data in batches as needed. The company plans to use Amazon EC2 instances for the workload. The network architecture must support a highly scalable solution and prevent groups of nodes from sharing the same underlying hardware. Which combination of network solutions will meet these requirements? (Select TWO.)

A. Create Capacity Reservations for the EC2 instances to run in a placement group.

B. Run the EC2 instances in a spread placement group.

C. Run the EC2 instances in a cluster placement group.

D. Place the EC2 instances in an EC2 Auto Scaling group.

E. Run the EC2 instances in a partition placement group.

I have got this Question.....Can anyone tell the answer? Spread or Partition?

upvoted 5 times

 **mahdeo01** 1 week, 1 day ago

yes, the answer is - Partition and Spread ... Both are Correct. (they said Select Two answers) , so what is the confusion??

upvoted 1 times

 **Gupshup** 1 month, 1 week ago

Cluster Placement Group: Packs instances close together inside an Availability Zone. This strategy enables workloads to achieve the low-latency network performance necessary for tightly-coupled node-to-node communication that is typical of HPC applications.

Partition Placement Group: Spreads your instances across logical partitions such that groups of instances in one partition do not share the underlying hardware with groups of instances in different partitions. This strategy is typically used by large distributed and replicated workloads, such as Hadoop, Cassandra, and Kafka.

Spread Placement Group: Strictly places a small group of instances across distinct underlying hardware to reduce correlated failures.

upvoted 1 times

 **genni** 1 month, 2 weeks ago

Spread – strictly places a small group of instances across distinct underlying hardware to reduce correlated failures.

upvoted 1 times

 **genni** 1 month, 2 weeks ago

Partition – spreads your instances across logical partitions such that groups of instances in one partition do not share the underlying hardware with groups of instances in different partitions. This strategy is typically used by large distributed and replicated workloads, such as Hadoop, Cassandra, and Kafka.

upvoted 1 times

 **genni** 1 month, 2 weeks ago

So the answer will be, Partition.

upvoted 1 times

 **sarah_t** 2 months, 3 weeks ago

Answer B and D.

Why spread and not partition?

- With partition placement the group is divided into a number of partitions, each running on a distinct rack. But the partitions can contain more than one instance. This contradicts the requirement "prevent groups of nodes from sharing the same underlying hardware".

- In a spread placement group each instance is placed on a different rack.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

upvoted 2 times

 **dmscounterera** 3 months, 1 week ago

C data events are not enabled by default.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=C.CT.....data events.... .

upvoted 1 times

 **Bonjaski0989** 4 months ago

Management Events - Tracks management operations. Turned on by default. Can't be turned off

Data Events. Tracks Specific operations for specific AWS Services. Tuned off by default.

The two services that can be tracked in S3 and Lambda.

Due to Tracking Specific Services (S3) I would go C

upvoted 2 times

 **algreat** 4 months, 2 weeks ago

Vote for C

upvoted 1 times

leopardoy 4 months, 2 weeks ago

my take is C

upvoted 1 times

DrCloud 4 months, 2 weeks ago

C

<https://aws.amazon.com/premiumsupport/knowledge-center/cloudtrail-data-management-events/>

<https://docs.aws.amazon.com/awscloudtrail/latest/userguide/logging-data-events-with-cloudtrail.html>

Data events:

Data events provide visibility into the resource operations performed on or within a resource. These are also known as data plane operations. Data events are often high-volume activities.

The following data types are recorded:

1. Amazon S3 object-level API activity (for example, GetObject, DeleteObject, and PutObject API operations)

2. AWS Lambda function execution activity (the Invoke API)

upvoted 4 times

1naccurate 4 months, 2 weeks ago

My take is D: all the options are phrased as bucket level logging -> CloudTrail read & write management events

upvoted 2 times

sasuke24124 4 months, 2 weeks ago

C for sure

upvoted 1 times

toto059 4 months, 2 weeks ago

C , <https://docs.aws.amazon.com/AmazonS3/latest/dev/cloudtrail-logging.html>

upvoted 1 times

Question #275

Topic 1

A company has an on-premises volume backup solution that has reached its end of life. The company wants to use AWS as part of a new backup solution and wants to maintain local access to all the data while it is backed up on AWS. The company wants to ensure that the data backed up on AWS is automatically and securely transferred.

Which solution meets these requirements?

- A. Use AWS Snowball to migrate data out of the on-premises solution to Amazon S3. Configure on-premises systems to mount the Snowball S3 endpoint to provide local access to the data.
- B. Use AWS Snowball Edge to migrate data out of the on-premises solution to Amazon S3. Use the Snowball Edge file interface to provide on-premises systems with local access to the data.
- C. Use AWS Storage Gateway and configure a cached volume gateway. Run the Storage Gateway software appliance on premises and configure a percentage of data to cache locally. Mount the gateway storage volumes to provide local access to the data.
- D. Use AWS Storage Gateway and configure a stored volume gateway. Run the Storage Gateway software appliance on premises and map the gateway storage volumes to on-premises storage. Mount the gateway storage volumes to provide local access to the data.

Correct Answer: D

 **viet1991** Highly Voted 4 months, 2 weeks ago

D. Use AWS Storage Gateway and configure a stored volume gateway

Can not use AWS Snowball because of "maintaining local access to all the data"

Keywords: store all your data locally

Volume Gateway:

The gateway supports the following volume configurations:

Cached volumes – You store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally. Cached volumes offer a substantial cost savings on primary storage and minimize the need to scale your storage on-premises. You also retain low-latency access to your frequently accessed data.

Stored volumes – If you need low-latency access to your entire dataset, first configure your on-premises gateway to store all your data locally. Then asynchronously back up point-in-time snapshots of this data to Amazon S3. This configuration provides durable and inexpensive offsite backups that you can recover to your local data center or Amazon Elastic Compute Cloud (Amazon EC2). For example, if you need replacement capacity for disaster recovery, you can recover the backups to Amazon EC2.

upvoted 21 times

 **DrCloud** Highly Voted 4 months, 2 weeks ago

D. AWS Storage Gateway - "stored volume" gateway

<https://docs.aws.amazon.com/storagegateway/latest/userguide/StorageGatewayConcepts.html>

Stored volumes architecture:

1. Store primary data locally, while asynchronously backing up that data to AWS.
2. Stored volumes provide on-premises applications with low-latency access to their entire datasets.
3. Also provide durable, offsite backups.

upvoted 5 times

 **vamshidhara** Most Recent 1 week, 3 days ago

Maintain all local copies of the data in on premises

D

upvoted 1 times

 **ShanTinku** 1 week, 5 days ago

Its C for use cache volume for local access

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

D for sure

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

A and B are out since the qn doesn't state the amount of data involved

"access to all the data"

D is the answer

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=D. Use AWS Storage Gateway and configure a stored volume gateway. Run the Storage Gateway software appliance on premises and map the gateway storage volumes to on-premises storage. Mount the gateway storage volumes to provide local access to the data.
<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>

upvoted 1 times

 **sikkibasha** 4 months ago

C....Local access is the key

upvoted 2 times

 **theCreatorSD** 6 days, 13 hours ago

I hope you read this carefully and harden your knowledge.

<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>

upvoted 1 times

 **AK003** 4 months, 2 weeks ago

DDDDDDDDDDDDDDDD

upvoted 1 times

 **algreat** 4 months, 2 weeks ago

D is answer

upvoted 2 times

 **CountryGent** 4 months, 2 weeks ago

D: Key term = on premise Access to ALL data.

upvoted 4 times

 **toto059** 4 months, 2 weeks ago

D, correct

upvoted 2 times

Question #276

Topic 1

A company is using a third-party vendor to manage its marketplace analytics. The vendor needs limited programmatic access to resources in the company's account. All the needed policies have been created to grant appropriate access.

Which additional component will provide the vendor with the MOST secure access to the account?

- A. Create an IAM user.
- B. Implement a service control policy (SCP)
- C. Use a cross-account role with an external ID.
- D. Configure a single sign-on (SSO) identity provider.

Correct Answer: B

Reference:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html#data-from-iam

✉  **viet1991**  4 months, 2 weeks ago

C.

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-user_externalid.html

"For example, let's say that you decide to hire a third-party company called Example Corp to monitor your AWS account and help optimize costs. In order to track your daily spending, Example Corp needs to access your AWS resources. Example Corp also monitors many other AWS accounts for other customers.

Do not give Example Corp access to an IAM user and its long-term credentials in your AWS account. Instead, use an IAM role and its temporary security credentials. An IAM role provides a mechanism to allow a third party to access your AWS resources without needing to share long-term credentials (for example, an IAM user's access key)."

IAM is good but not enough.

"Programmatic access: The IAM user might need to make API calls, use the AWS CLI, or use the Tools for Windows PowerShell. In that case, create an access key (access key ID and a secret access key) for that user.

AWS Management Console access: If the user needs to access the AWS Management Console, create a password for the user."

upvoted 12 times

✉  **aguy9** 4 months ago

Yep C sounds good, the link explains it well

upvoted 1 times

✉  **AA11** 4 months, 1 week ago

I agree that C is the answer. Also, question explicitly states that all policies are in place. Does that mean SCP is also in place? which will make B redundant. SSO will not help with securing and controlling what the external user will have access to. Create an IAM user is not a good option based on the link provided in viet1991's response.

upvoted 3 times

✉  **toto059**  4 months, 2 weeks ago

B , correct

upvoted 5 times

✉  **YazanZeidan**  2 weeks, 3 days ago

Answer is c please understand what SCP do.

in this question says vendor so vendor not in the org so b is wrong.

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html

upvoted 1 times

✉  **sugarwall09** 3 weeks, 2 days ago

paraphrase "All the needed policies have been created" >> something still need to be "implemented" >> additional item is SCP >> Answer. (B). Thoughts?

upvoted 1 times

✉  **vamshidhara** 1 week, 3 days ago

SCP is used for users with in the same accounts

upvoted 1 times

✉  **francisco_guerra** 1 month ago

Lol look like A is the correct answer

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_common-scenarios_third-party.html

When third parties require access to your organization's AWS resources, you can use roles to delegate access to them. For example, a third party might provide a service for managing your AWS resources. With IAM roles, you can grant these third parties access to your AWS resources without sharing your AWS security credentials.

because cross-account external id does not exists
just external ids.

upvoted 2 times

✉ **francisco_guerra** 1 month ago

Sorry that says IAM user so the answer its C maybe
upvoted 1 times

✉ **KK_uniq** 2 months, 1 week ago

I will go with B
upvoted 1 times

✉ **Lila2A** 2 months, 2 weeks ago

B is false for sure

SCPs affect only IAM users and roles that are managed by accounts that are part of the organization. SCPs don't affect resource-based policies directly. They also don't affect users or roles from accounts outside the organization. For example, consider an Amazon S3 bucket that's owned by account A in an organization. The bucket policy (a resource-based policy) grants access to users from account B outside the organization. Account A has an SCP attached. That SCP doesn't apply to those outside users in account B. The SCP applies only to users that are managed by account A in the organization.

upvoted 2 times

✉ **Abdullah777** 2 months, 3 weeks ago

C

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-user_externalid.html

upvoted 4 times

✉ **occupatissimo** 2 months, 4 weeks ago

Here we have a third-party vendor that can have an aws account or not.

For sure we have an external access.

A is out because only for company users

B is out because related to organization (company users) usage

C is out because valid for aws users only

D is right and is a strong recommended security behavior

upvoted 2 times

✉ **syu31svc** 2 months, 4 weeks ago

"All the needed policies have been created to grant appropriate access"

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-user_externalid.html:

"At times, you need to give a third party access to your AWS resources (delegate access). One important aspect of this scenario is the External ID, optional information that you can use in an IAM role trust policy to designate who can assume the role."

Answer is C

upvoted 3 times

✉ **Yogi** 3 months, 3 weeks ago

Ans=C. Use a cross-account role with an external ID.

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-user_externalid.html

upvoted 1 times

✉ **Yogi** 3 months, 2 weeks ago

My bad, answer is SCP (B)

upvoted 1 times

✉ **AjitS** 3 months ago

Ans is D.

Single Sign-On makes it easy to centrally manage access to multiple AWS accounts and business applications and provide users with single sign-on access to all their assigned accounts and applications from one place. With SSO, you can easily manage SSO access and user permissions to all of your accounts in AWS Organizations centrally.

upvoted 1 times

✉ **ophnet** 4 months, 1 week ago

C is correct.

"At times, you need to give a third party access to your AWS resources (delegate access). One important aspect of this scenario is the External ID"

upvoted 2 times

✉ **AK003** 4 months, 2 weeks ago

C for sure

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-user_externalid.html

upvoted 2 times

✉ **CCNPWILL** 4 months, 2 weeks ago

I have to go with B.

upvoted 2 times

✉ **algreat** 4 months, 2 weeks ago

I vote for D

upvoted 2 times

 **CountryGent** 4 months, 2 weeks ago

Answer is D: The vendor doesn't necessarily have an account to manage with SCP. Single Sign On gets my vote.
An SCP defines a guardrail, or sets limits, on the actions that the account's administrator can delegate to the IAM users and roles in the affected accounts.

upvoted 3 times

 **CCNPWILL** 4 months, 2 weeks ago

its def NOT D. SSO does not address the security concern and most def does not have to do with granting access for this scenario. SSO is best used to sign onto multiple apps without needing to sign on over and over. not D

upvoted 7 times

Question #277

Topic 1

A company is developing an ecommerce application that will consist of a load-balanced front end, a container-based application, and a relational database. A solutions architect needs to create a highly available solution that operates with as little manual intervention as possible. Which solutions meet these requirements? (Choose two.)

- A. Create an Amazon RDS DB instance in Multi-AZ mode.
- B. Create an Amazon RDS DB instance and one or more replicas in another Availability Zone.
- C. Create an Amazon EC2 instance-based Docker cluster to handle the dynamic application load.
- D. Create an Amazon Elastic Container Service (Amazon ECS) cluster with a Fargate launch type to handle the dynamic application load.
- E. Create an Amazon Elastic Container Service (Amazon ECS) cluster with an Amazon EC2 launch type to handle the dynamic application load.

Correct Answer: AD

Reference:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html

 **viet1991** Highly Voted 4 months, 2 weeks ago

A&D.

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide>Welcome.html>

1. Relational database: RDS

2. Container-based applications: ECS

"Amazon ECS enables you to launch and stop your container-based applications by using simple API calls. You can also retrieve the state of your cluster from a centralized service and have access to many familiar Amazon EC2 features."

3. Little manual intervention: Fargate

You can run your tasks and services on a serverless infrastructure that is managed by AWS Fargate. Alternatively, for more control over your infrastructure, you can run your tasks and services on a cluster of Amazon EC2 instances that you manage.

upvoted 24 times

 **dave0808** 3 months, 4 weeks ago

spot on

upvoted 1 times

 **KK_uniq** Most Recent 2 months, 1 week ago

AD for sure

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

A over B for sure

For ECS, use Fargate so D

<https://aws.amazon.com/fargate/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc&fargate-blogs.sort-by=item.additionalFields.createdDate&fargate-blogs.sort-order=desc>:

"AWS Fargate is a serverless compute engine for containers that works with both Amazon Elastic Container Service (ECS) and Amazon Elastic Kubernetes Service (EKS)."

upvoted 2 times

 **Ni_yot** 3 months ago

A is obvious.

D. Fargate is server less and use case is for containers. ECS and EKS.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans= A. Create an Amazon RDS DB instance in Multi-AZ mode.

D. Create an Amazon Elastic Container Service (Amazon ECS) cluster with a Fargate launch type to handle the dynamic application load.

upvoted 1 times

 **welcome12** 3 months, 3 weeks ago

why not B instead of A

as you can promote a read replica to a standalone instance as a disaster recovery solution if the primary DB instance fails.

upvoted 2 times

 **AK003** 4 months, 2 weeks ago

AD is correct

upvoted 1 times

 **algreat** 4 months, 2 weeks ago

AD is ok

upvoted 1 times

 **reddy535** 4 months, 2 weeks ago

A, D is the correct answer.

upvoted 1 times

 **DrCloud** 4 months, 2 weeks ago

A,D

1. Highly available solution: Amazon RDS DB instance in Multi-AZ mode
2. "as little manual intervention as possible": ECS cluster with a Fargate launch type

upvoted 2 times

 **toto059** 4 months, 2 weeks ago

A& D because read replica for performance

upvoted 1 times

 **korapavan433** 4 months, 1 week ago

stop nonsense of your answers without explanation. if you dont know just put question mark

upvoted 1 times

Question #278

Topic 1

A company has an ecommerce application that stores data in an on-premises SQL database. The company has decided to migrate this database to AWS.

However, as part of the migration, the company wants to find a way to attain sub-millisecond responses to common read requests.

A solutions architect knows that the increase in speed is paramount and that a small percentage of stale data returned in the database reads is acceptable.

What should the solutions architect recommend?

- A. Build Amazon RDS read replicas.
- B. Build the database as a larger instance type.
- C. Build a database cache using Amazon ElastiCache.
- D. Build a database cache using Amazon Elasticsearch Service (Amazon ES).

Correct Answer: A

Reference:

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

✉  **viet1991** Highly Voted 4 months, 2 weeks ago

C.
common read requests: cache

A is wrong:

submillisecond : Lasting less than a millisecond.

But all Aurora Replicas return the same data for query results with minimal replica lag. This lag is usually much less than 100 milliseconds after the primary instance has written an update. Replica lag varies depending on the rate of database change. That is, during periods where a large amount of write operations occur for the database, you might see an increase in replica lag.

D is for:

Application monitoring
Security information and event management (SIEM)
Search
Infrastructure monitoring
upvoted 13 times

✉  **viet1991** 4 months, 2 weeks ago

<https://aws.amazon.com/elasticache/redis-vs-memcached/>

Sub-millisecond latency

Both Redis and Memcached support sub-millisecond response times. By storing data in-memory they can read data more quickly than disk based databases.

upvoted 3 times

✉  **vamshidhara** Most Recent 1 week, 3 days ago

C

Relational databases are a cornerstone of most applications. When it comes to scalability and low latency though, there's only so much you can do to improve performance. Even if you add replicas to scale reads, there's a physical limit imposed by disk based storage. The most effective strategy for coping with that limit is to supplement disk-based databases with in-memory caching.

upvoted 1 times

✉  **Raksim** 1 month ago

Keywords: Common Read Requests === If they are common then its elasticache

upvoted 2 times

✉  **AnandP21** 1 month ago

Correct Ans : C

Key Words : Sub-millisecond, common read requests

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

upvoted 1 times

✉  **PATEL1492** 1 month, 1 week ago

I would go with A

1. since Redis avoid seek time delays and can access data in microseconds.

2. They work with relational or key-value databases to improve performance, such as MySQL, Postgres, Aurora, Oracle, SQL Server, DynamoDB, and more.

upvoted 1 times

✉  **Toks2021** 1 month, 1 week ago

why does it say the answer is A, but the explanation points to C.

I believe C should be the best answer.

upvoted 2 times

 **SandyIndia** 1 month, 3 weeks ago

Correct Ans C:

Keyword: common read requests: in memory cache

Wrong:

- A: Amazon RDS read used to Offload all read requests.
- B: Large instance type will not help in sub-millisecond.
- C: Elasticsearch to search, data in real-time.

upvoted 1 times

 **cianal** 2 months ago

Amazon ElastiCache offers fully managed Redis, voted the most loved database by developers in the Stack Overflow 2020 Developer Survey, and Memcached for your most demanding applications that require sub-millisecond response times

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

C for sure

upvoted 1 times

 **Kopa** 2 months, 3 weeks ago

maybe A? What makes me doubting is the word "a small percentage of stale data returned in the database reads is acceptable" which is well said on the link below refering read replicate:

Serving read traffic while the source DB instance is unavailable. In some cases, your source DB instance might not be able to take I/O requests, for example due to I/O suspension for backups or scheduled maintenance. In these cases, you can direct read traffic to your read replicas. For this use case, keep in mind that the data on the read replica might be "stale" because the source DB instance is unavailable.

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html

Also read replica instance is with ssd so should be sub-ms latency.

upvoted 3 times

 **aesr10** 2 months, 2 weeks ago

Aurora server less has sub millisecond latency and having some stale data is acceptable. I think A is the answer as well

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

"increase in speed is paramount"

Answer is C then; ElastiCache

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=C.elasticache....

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

upvoted 1 times

 **ginoginelli** 4 months, 1 week ago

So why the website says A?

upvoted 2 times

 **algreat** 4 months, 2 weeks ago

C redis

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

C is not redis man. you are memorizing questions. Redis is for another question. stop reading halfway or looking at the answers only and responding with an answer. You are not helping anyone here. The answer is C.. but for Elasticache.

upvoted 4 times

 **liquen14** 4 months, 1 week ago

With all due respect, you should stop telling off people and saying them what they can or can't do. You are not a moderator
upvoted 12 times

 **Rakeshch** 1 month, 2 weeks ago

that is exatly waht you are doing. isn't it?

upvoted 1 times

 **DrCloud** 4 months, 2 weeks ago

C. Amazon ElastiCache.

To attain sub-millisecond responses to common read requests.

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

REDIS (REmote DIctionary Server) delivers sub-millisecond response times enabling millions of requests per second for real-time applications.

upvoted 3 times

 **1naccurate** 4 months, 2 weeks ago

My take is C. "Amazon ElastiCache works as an in-memory data store and cache to support the most demanding applications requiring sub-millisecond response times."

upvoted 2 times

 **CountryGent** 4 months, 2 weeks ago

C: "sub-millisecond responses to common read requests".

upvoted 2 times

Question #279

Topic 1

A company has an application that ingests incoming messages. These messages are then quickly consumed by dozens of other applications and microservices.

The number of messages varies drastically and sometimes spikes as high as 100,000 each second. The company wants to decouple the solution and increase scalability.

Which solution meets these requirements?

- A. Persist the messages to Amazon Kinesis Data Analytics. All the applications will read and process the messages.
- B. Deploy the application on Amazon EC2 instances in an Auto Scaling group, which scales the number of EC2 instances based on CPU metrics.
- C. Write the messages to Amazon Kinesis Data Streams with a single shard. All applications will read from the stream and process the messages.
- D. Publish the messages to an Amazon Simple Notification Service (Amazon SNS) topic with one or more Amazon Simple Queue Service (Amazon SQS) subscriptions. All applications then process the messages from the queues.

Correct Answer: A

Reference:

<https://aws.amazon.com/kinesis/data-streams/faqs/>

 **TollaMS** Highly Voted 4 months, 2 weeks ago

Every time you see Decoupling please choose SQS so the answer is D
upvoted 8 times

 **CCNPWILL** 4 months, 1 week ago

'spikes as high as 100,000 each second.'
SQS cant handle this. need kinesis. Go study buddy.
upvoted 11 times

 **andwill1001** 1 week, 5 days ago

There's is nothing in AWS documentation that confirms this. Only a small blip on FIFO messages per second. Decoupling with SQS is what makes sense here. A doesn't make any sense to me.
upvoted 1 times

 **Akwex** 1 month, 2 weeks ago

Standard queues support a nearly unlimited number of transactions per second (TPS) per API action.
<https://aws.amazon.com/sqs/features/>
upvoted 2 times

 **zxing233** 3 weeks ago

SQS can SNS can't. check SNS service quotas
upvoted 1 times

 **Vizz5585** 2 days, 19 hours ago

<https://aws.amazon.com/sns/features/>
upvoted 1 times

 **gabrielegue** 2 months, 2 weeks ago

but there is also written " with one or more Amazon Simple Queue Service (Amazon SQS)"
upvoted 2 times

 **KK_uniq** Highly Voted 2 months, 1 week ago

D for sure
upvoted 6 times

 **meiam** Most Recent 2 days, 16 hours ago

Answer is D:
A-Amazon Kinesis Data Analytics used for analytics not for massaging
B- EC2 surley cant treat spikes
C- make sence but you can find limition of Kinesis Data Streams that
Each shard can support up to 1000 PUT records per second
<https://aws.amazon.com/kinesis/data-streams/faqs/>
D- the answer
upvoted 1 times

 **soundarya_vs** 1 week, 1 day ago

Going with D as SQS allow max 120000 msg per second. Only FIFO is limited with 20000 msg
upvoted 1 times

✉ **vamshidhara** 3 days, 14 hours ago
U can have multiple SQS and split the messages but SNS cannot handle 100,000 msg
upvoted 1 times

✉ **jkwek** 2 months, 1 week ago
The answer is D.
I am a full time MQ support guy before so i know this type of message queues designs very well.
Usually large number of messages go into a topic and they will be consumed by many message queues who subscribed to them.
upvoted 4 times

✉ **Abdullah777** 2 months, 3 weeks ago
single shard give max 1MB/s where SNS 300 transections per second or 10MB/s. SNS can support up to 30000 transaction per second that means roughly 1GB/s. K stream is good with microservices to do decoupling in the Reactive Architecture but the problem they said one shard. I am going with D specially that we have queue so nothing will be lose.
D
upvoted 6 times

✉ **occupatissimo** 2 months, 4 weeks ago
But SQS support max 3000 transactions (api call) in batch mode.
I think there's an error in rewriting the question.
upvoted 1 times

✉ **gabrielegue** 2 months, 2 weeks ago
but there is also written " with one or more Amazon Simple Queue Service (Amazon SQS)"
upvoted 1 times

✉ **syu31svc** 2 months, 4 weeks ago
I would argue for D since:
1) Decoupling like what the qn states
2) You can raise a request to AWS to increase limit
upvoted 1 times

✉ **waqas** 3 months ago
A single Amazon SQS message queue can contain an unlimited number of messages. However, there is a 120,000 quota for the number of inflight messages for a standard queue and 20,000 for a FIFO queue. So D is right.
upvoted 4 times

✉ **Yogi** 3 months, 3 weeks ago
Ans=D.decoupling and handling 100k topics
<https://aws.amazon.com/sns/faqs/>
upvoted 1 times

✉ **AwsNewPeople** 3 months, 3 weeks ago
Please take note during the exam it has an answer being changed to SQS, So between SQS and SNS i choosed SQS
upvoted 1 times

✉ **NSF** 3 months, 4 weeks ago
It has to be D
Q: Are there quotas for the number of topics or number of subscribers per topic?

By default, SNS offers 10 million subscriptions per topic, and 100,000 topics per account. To request a higher quota, please contact Support.
upvoted 1 times

✉ **hanni123** 4 months ago
I think D the key word Decouple
upvoted 1 times

✉ **rlandire** 4 months, 1 week ago
I don't like A but looks like the only valid option:

B - it does not scale.
C- one single shard can only handle 1000 records per second.
D- the problem here is it looks like SNS can handle up to 30.000 transactions per second. (<https://docs.aws.amazon.com/general/latest/gr/sns.html>)
upvoted 3 times

✉ **Ixy189** 2 months, 3 weeks ago
I think one single shard support 1000,000;1000 is for write. A is wired,I don't think kinesis analysis consumed by other apps directly, need kinesis stream. So I prefer C
upvoted 1 times

✉ **aguy9** 4 months ago
The link that you posted is broken, according to the link I found regarding SNS, "The service is designed to handle high-throughput, bursty traffic patterns and enables you to send millions of messages per second." <https://aws.amazon.com/sns/?whats-new-cards.sort->

by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc
upvoted 1 times

✉ **aguy9** 4 months ago

Sorry, I think I was wrong here because the below link demonstrates message quotas of much less than 100,000 per second but also states that you can request to increase quotas... confusing.
<https://docs.aws.amazon.com/general/latest/gr/sns.html>
upvoted 1 times

✉ **Ping001** 4 months, 1 week ago

I think the answer is D.
<https://aws.amazon.com/sqs/faqs/>
Q: How large can Amazon SQS message queues be?

A single Amazon SQS message queue can contain an unlimited number of messages. However, there is a 120,000 quota for the number of inflight messages for a standard queue and 20,000 for a FIFO queue. Messages are inflight after they have been received from the queue by a consuming component, but have not yet been deleted from the queue.

upvoted 4 times

✉ **noahsark** 3 months, 2 weeks ago

"contain an unlimited number of messages" is different from "spikes as high as 100,000 each second"
upvoted 1 times

✉ **Sam82** 4 months, 1 week ago

Answer is D
<https://aws.amazon.com/sqs/>
upvoted 1 times

✉ **CCNPWILL** 4 months, 2 weeks ago

The answer is A. its obvious we need data streams for this volume and we need a scalable solution. a single shard will not support this. C is not the answer. I go with A.
upvoted 2 times

✉ **noahsark** 3 months, 2 weeks ago

agree with A.
Eliminate the following:
B - EC2 is virtual machine
C - single shard maximum is 1,000 messages per second
<https://docs.aws.amazon.com/streams/latest/dev/service-sizes-and-limits.html>
D - SQS maximum is 30,000 messages per second.
<https://aws.amazon.com/sqs/faqs/>
upvoted 1 times

✉ **noahsark** 2 months, 3 weeks ago

disregard A. got confused:

Standard Queues - Unlimited Throughput: Standard queues support a nearly unlimited number of transactions per second (TPS) per API action.

<https://aws.amazon.com/sqs/features/>
upvoted 1 times

Question #280

Topic 1

A solutions architect is designing the cloud architecture for a company that needs to host hundreds of machine learning models for its users. During startup, the models need to load up to 10 GB of data from Amazon S3 into memory, but they do not need disk access. Most of the models are used sporadically, but the users expect all of them to be highly available and accessible with low latency.

Which solution meets the requirements and is MOST cost-effective?

- A. Deploy models as AWS Lambda functions behind an Amazon API Gateway for each model.
- B. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind an Application Load Balancer for each model.
- C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model.
- D. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind a single Application Load Balancer with path-based routing where one path corresponds to each model.

Correct Answer: C

✉  **viet1991** Highly Voted 4 months, 2 weeks ago

C.

AWS just update Lambda to support 10G memory and helping compute intensive applications like machine learning...
No disk access, lowest cost

Posted On: Dec 1, 2020

<https://aws.amazon.com/about-aws/whats-new/2020/12/aws-lambda-supports-10gb-memory-6-vcpu-cores-lambda-functions/#:~:text=Customer%20Enablement-,AWS%20Lambda%20now%20supports%20up%20to%2010%20GB%20of%20memory,vCPU%20cores%20for%20Lambda%20Functions&text=AWS%20Lambda%20customers%20can%20now,previous%20limit%20of%203%2C008%20MB.>

P/s: ELB has limit of 100 target groups

upvoted 15 times

✉  **cnmc** 2 weeks, 1 day ago

It seems you've never actually trained a model before... We CAN use Lambda to train models, but we SHOULD NOT. It's going to be hugely expensive, and 15mins is certainly too short

upvoted 1 times

✉  **andwill1001** 6 days, 9 hours ago

Have you? A simple google search shows that Lambda is highly recommended for machine learning models. Curious why you think we "should not"

upvoted 1 times

✉  **andwill1001** 6 days, 9 hours ago

answer is C. This article is literally the exact architecture C is talking about: <https://towardsdatascience.com/building-a-serverless-containerized-machine-learning-model-api-using-aws-lambda-api-gateway-and-a73a091ff82e>

upvoted 1 times

✉  **andwill1001** 6 days, 9 hours ago

changing my answer to D based on pricing.

upvoted 1 times

✉  **crazyaboutazure** 2 weeks, 2 days ago

C is right as If you want to run very small actions that are relatively simple in complexity, AWS Lambda provides a compelling hands-off solution to a highly scalable application. If your application or services do not fit within the limits that Lambda enforces, then Amazon ECS may provide better options for you.

If ECS with Fargate was given then that would have been best option. The situation demands for high availability and low latency which Lambda gives for 10 GB as it has 7.6 faster and since Lambda charges are proportional to memory configured and function duration (GB-seconds), the additional costs for using more memory may be offset by lower duration.

upvoted 1 times

✉  **DrCloud** Highly Voted 4 months, 2 weeks ago

D

To meet the requirements (such as "Most of the models are used sporadically") and to be "MOST cost-effective"

upvoted 11 times

✉  **robertomartinez** 1 month ago

Yes long running (ML training) 10gig lambda is gonna be VERY expensive , and could be impossible (15 min max) + as a tip 10 GIG was not possible when question was written. Please compare cost before saying ECS is more expensive than lambda: it makes no sense to say that for such compute intensive task, ECS is also pay as you go with much lower price/second with same capacity as lambda

upvoted 2 times

 **robertomartinez** 1 month ago

Some proof with us east ohio pricing data:
 10G lambda $0.0000001667 * 1000 * 3600 = 0.60/\text{hour}$ with 6 vCPU
 ECS 10G (fargate) : $\$0.004445 * 10 (\text{10G mem}) + 0.04048 * 4 = 0.161 = 0.20/\text{h}$: ECS fargate is 3 times cheaper than lambda, if you use ECS fargate spot, it's gonna be at least 9 times cheaper than lambda.
 The only thing is you gotta pay for ALB with D. In the end it's another question with incomplete input parameters so the real answer should be : not enough data to decide between lambda and ECS, but I guess at the time of the question there was no 10G lambda , and lambda makes no sense for ML training (15 min max lambda duration limit)

upvoted 1 times

 **TAvenger** 2 months ago

"C" is the answer.
 D can NOT be the RIGHT answer.
 Don't forget - we need highly available.
 ECS is highly scalable but not cheap. It uses EC2 instances under the hood. In order to be highly available you will have a few EC2 instances always running to support at least one container for each machine learning model. And each of these containers will consume 10Gb per model even if it is idling. In total it will be more than 1 TB memory ALL THE TIME.
 And traffic is sporadic. This means that sometimes you will not have any requests, but your containers (at least 1 per model) will be running wasting requested memory.

If you configure somehow (don't know even if it is possible) to have 0 containers when idling -> you will not have highly available system because you will need to run the container and provision the underlying EC2 instances.

upvoted 3 times

 **robertomartinez** 1 month ago

wrong ECS is cheaper than lambda + ECS can use fargate where you pay 0 when not used

upvoted 2 times

 **vamshidhara** (Most Recent) 3 days, 14 hours ago

D
 MOST cost-effective than C

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

Will go with C as it does not need disk access

upvoted 2 times

 **NSF2** 2 months, 4 weeks ago

It must be D as below.

<https://aws.amazon.com/blogs/compute/using-amazon-api-gateway-with-microservices-deployed-on-amazon-ecs/>

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

I would C

Serverless for cost effectiveness so B and D are eliminated

One model per gateway and function definitely increases costs so A is wrong

upvoted 2 times

 **robertomartinez** 1 month ago

serverless is not cost effective for everything, saying that is just repeating AWS advertising

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model.

upvoted 1 times

 **Atanu_M** 4 months ago

Ans C.

B & D are ruled out as it's sporadic also doesn't require disk space ECS / EC2 always comes with root volume (additional cost) . Now lambda can support 10 GB memory.

Between A & C - C gives a solution using single API GW hence C is preferred.

upvoted 5 times

 **aguy9** 4 months ago

Just to add to Atanu'S post, C is correct because you can use path based routing in API gateway. Obviously it's preferable to have one API gateway rather than 100s for each model. Please see quote and link as evidence of path based routing "A WebSocket route in API Gateway is used to direct incoming messages to a specific integration, such as an AWS Lambda function, based on the content of the message. When you define your WebSocket API, you specify a route key and an integration backend. The route key is an attribute in the message body. When the route key is matched in an incoming message, the integration backend is invoked."

<https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-basic-concept.html>

upvoted 3 times

 **Ping001** 4 months, 1 week ago

i think the answer is C as it runs ONE API Gateway vs A where i read it as each model getting its own API gateway. Hundreds of models = hundreds of gateways. Would that not cost more?

upvoted 5 times

 **ophnet** 4 months, 1 week ago

A is correct. "AWS Lambda customers can now provision Lambda functions with a maximum of 10,240 MB (10 GB) of memory, a more than 3x increase compared to the previous limit of 3,008 MB. This helps workloads like batch, extract, transform, load (ETL) jobs, and media processing applications perform memory intensive operations at scale"

<https://aws.amazon.com/it/about-aws/whats-new/2020/12/aws-lambda-supports-10gb-memory-6-vcpu-cores-lambda-functions/>
upvoted 2 times

 **Lunchb0ne** 4 months, 2 weeks ago

D
I think it should be correct.
upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

The answer is D. It is the most cost efficient.
upvoted 1 times

 **algreat** 4 months, 2 weeks ago

D is more cost-efficient
upvoted 2 times

 **toto059** 4 months, 2 weeks ago

B is correct
upvoted 1 times

Question #281

Topic 1

A company has created a multi-tier application for its ecommerce website. The website uses an Application Load Balancer that resides in the public subnets, a web tier in the public subnets, and a MySQL cluster hosted on Amazon EC2 instances in the private subnets. The MySQL database needs to retrieve product catalog and pricing information that is hosted on the internet by a third-party provider. A solutions architect must devise a strategy that maximizes security without increasing operational overhead.

What should the solutions architect do to meet these requirements?

- A. Deploy a NAT instance in the VPC. Route all the internet-based traffic through the NAT instance.
- B. Deploy a NAT gateway in the public subnets. Modify the private subnet route table to direct all internet-bound traffic to the NAT gateway.
- C. Configure an internet gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the internet gateway.
- D. Configure a virtual private gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the virtual private gateway.

Correct Answer: C

 **Ddog1008** Highly Voted 4 months, 2 weeks ago

B

A NAT Gateway does something similar, but with two main differences:

It allows resources in a private subnet to access the internet (think yum updates, external database connections, wget calls, OS patch, etc)
It only works one way. The internet at large cannot get through your NAT to your private resources unless you explicitly allow it.

upvoted 30 times

 **noahsark** 3 months, 3 weeks ago

Answer B diagram here:

<https://docs.aws.amazon.com/vpc/latest/userguide/images/nat-gateway-diagram.png>

upvoted 3 times

 **enurupu** Most Recent 1 week, 1 day ago

It is has got 2 public subnets. When you save public subnet that means IGW is already present in VPC

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

B is ok

upvoted 3 times

 **ansh18061986** 2 months, 1 week ago

I will go with B

upvoted 1 times

 **leliodesouza** 2 months, 3 weeks ago

The correct answer is B.

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

This is B for sure

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Secured internet connection, ans=B. Deploy a NAT gateway in the public subnets. Modify the private subnet route table to direct all internet-bound traffic to the NAT gateway.

upvoted 2 times

 **hanni123** 4 months ago

BBBBBBBBBB

upvoted 3 times

 **AK003** 4 months, 2 weeks ago

B- NAT Gateway

upvoted 3 times

 **CCNPWILL** 4 months, 2 weeks ago

B is in fact correct.

upvoted 3 times

 **algreat** 4 months, 2 weeks ago

B, it works and less management than A
upvoted 3 times

 **toto059** 4 months, 2 weeks ago

C is correct
upvoted 1 times

 **Sanveg** 1 month ago

B is correct
upvoted 1 times

 **massyg** 3 months ago

I think you have to study... :|
upvoted 4 times

 **AK003** 4 months, 2 weeks ago

if you open the internet gateway access to private subnet , it will no longer be a private subnet! so C is not correct.
upvoted 3 times

 **DrCloud** 4 months, 2 weeks ago

B
<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-gateway.html>
NAT gateways:
You can use a network address translation (NAT) gateway to enable instances in a private subnet to connect to the internet or other AWS services, but prevent the internet from initiating a connection with those instances.
upvoted 11 times

Question #282

Topic 1

A company is backing up on-premises databases to local file server shares using the SMB protocol. The company requires immediate access to 1 week of backup files to meet recovery objectives. Recovery after a week is less likely to occur, and the company can tolerate a delay in accessing those older backup files.

What should a solutions architect do to meet these requirements with the LEAST operational effort?

- A. Deploy Amazon FSx for Windows File Server to create a file system with exposed file shares with sufficient storage to hold all the desired backups.
- B. Deploy an AWS Storage Gateway file gateway with sufficient storage to hold 1 week of backups. Point the backups to SMB shares from the file gateway.
- C. Deploy Amazon Elastic File System (Amazon EFS) to create a file system with exposed NFS shares with sufficient storage to hold all the desired backups.
- D. Continue to back up to the existing file shares. Deploy AWS Database Migration Service (AWS DMS) and define a copy task to copy backup files older than 1 week to Amazon S3, and delete the backup files from the local file store.

Correct Answer: A

 **toto059** Highly Voted 4 months, 2 weeks ago

B is correct because is on primes

upvoted 15 times

 **patriktre** 3 weeks, 5 days ago

I would go with B. you make local cache to be able to hold 7 days backup:

Local disk storage on the gateway is used to temporarily hold changed data that needs to be transferred to AWS, and to locally cache data for low-latency read access. File Gateway automatically manages the cache maintaining the most recently accessed data based on client read and write operations. Data is evicted from the cache only when space is needed to store more recently used data.

To maximize write performance, the gateway uses a write-back mechanism where data is first persisted to disk and then asynchronously uploaded to S3. The gateway serves data from the local cache to maximize read performance. If not present, data is efficiently synchronously fetched from Amazon S3 using byte-range gets.

The local cache should generally be sized for the working set of data that you need low-latency access to. If the cache is too small then read latencies will increase as data being requested must be fetched from S3, and writes could fail if there is no free cache space to store data locally pending upload to S3.

upvoted 1 times

 **SandyIndia** 4 months, 1 week ago

Ans B is correct. File Gateway integrates On-Premises DB or Apps server using mounts share NFS or SMB to create interface to File Gateway to S3 to backup like .bak files in S3.

upvoted 4 times

 **noahsark** 3 months, 3 weeks ago

for B, what if the SMB shares go down?

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

SMB is Windows. The answer is A.

upvoted 6 times

 **Delooo** 2 months, 1 week ago

Go and study the answer is B, File gateway is the answer, it doesn't mention any thing about windows or active directory

upvoted 6 times

 **viet1991** 4 months, 2 weeks ago

Can not use FSx directly because you must need VPN or Direct Connect.

To access Amazon EFS file systems from on-premises, you must have an AWS Direct Connect or AWS VPN connection between your on-premises datacenter and your Amazon VPC.

<https://aws.amazon.com/efs/faq/#:~:text=To%20access%20Amazon%20EFS%20file,file%20system%20via%20the%20NFSv4.>

upvoted 6 times

 **nik351** Highly Voted 3 months, 3 weeks ago

<https://aws.amazon.com/blogs/storage/back-up-your-on-premises-applications-to-the-cloud-using-aws-storage-gateway/>

upvoted 6 times

 **Deyemzy** Most Recent 4 days, 11 hours ago

B

<https://aws.amazon.com/about-aws/whats-new/2018/06/aws-storage-gateway-adds-smb-support-to-store-objects-in-amazon-s3/>
upvoted 1 times

 **JRealFu** 1 week, 4 days ago

A

<https://docs.aws.amazon.com/fsx/latest/LustreGuide/mounting-on-premises.html>
upvoted 1 times

 **vamshidhara** 1 week, 3 days ago

B

You use Lustre for workloads where speed matters, such as machine learning, high performance computing (HPC), video processing, and financial modeling.

upvoted 1 times

 **TollaMS** 1 week, 5 days ago

B is the answer

<https://aws.amazon.com/blogs/storage/back-up-your-on-premises-applications-to-the-cloud-using-aws-storage-gateway/>

upvoted 1 times

 **koltysk** 1 month ago

did not understand anything but very interesting

upvoted 1 times

 **Gojira** 1 month, 1 week ago

The answer is A.

The question mentions LEAST operational effort. FSx is a managed service. SMB protocol is a Windows protocol and yes a company would need a VPN or Direct Connect to go between on prem and cloud. What company wouldn't have it?

upvoted 3 times

 **Iamrandom** 3 weeks, 3 days ago

"The company requires immediate access to 1 week of backup files" it wouldn't be "immediate" if in the cloud --> storage gateway

upvoted 2 times

 **VeeraB** 2 months, 1 week ago

BBBBBBBBBBB

<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

will go with B. Storage gateway for zero operational overhead

upvoted 1 times

 **SilentJay** 2 months, 3 weeks ago

Answer: B

Only File Gateway can satisfy the requirement of "immediate access."

upvoted 1 times

 **Abdullah777** 2 months, 3 weeks ago

immediate access mean locally. B decently out. I cant see other than D.

upvoted 1 times

 **occupatissimo** 2 months, 4 weeks ago

Just adding a consideration other than the others correct already written.

Question doesn't specific any windows client only usage so solution must consider linux and windows client because both can work with smb protocol.

So solution must consider both cases and it's only B.

upvoted 1 times

 **fremun05** 2 months, 1 week ago

read carefully ! B says "to hold 1 week of backups" what you are going to do with older backups ?

upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

I would B since the qn is about backing up and "immediate access to 1 week of backup" wouldn't be fulfilled by FSx

<https://docs.aws.amazon.com/fsx/latest/WindowsGuide/using-backups.html>:

"By default, Amazon FSx takes an automatic daily backup of your file system. These automatic daily backups occur during the daily backup window that was established when you created the file system. At some point during the daily backup window, storage I/O might be suspended briefly while the backup process initializes (typically for less than a few seconds). When you choose your daily backup window, we recommend that you choose a convenient time of the day. This time ideally is outside of the normal operating hours for the applications that use the file system."

Automatic daily backups are kept for a certain period of time, known as a retention period. The default retention period for automatic daily

backups is 7 days. You can set the retention period to be between 0–90 days. Setting the retention period to 0 (zero) days turns off automatic daily backups. Automatic daily backups are deleted when the file system is deleted."

upvoted 1 times

 **waqas** 2 months, 4 weeks ago

So its Storage gateway or FSx????

upvoted 1 times

 **Ni_yot** 3 months ago

A for me. Fsx provides managed backups and restores. Costs \$0.013 GB/Month. Supports smb of course

upvoted 1 times

 **soti84** 3 months, 1 week ago

How are you gonna expose the Amazon FSx share (choice A)? You need a secure connection to it. B is the correct one.
B is the right answer.

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Deploy an AWS Storage Gateway file gateway with sufficient storage to hold 1 week of backups. Point the backups to SMB shares from the file gateway.

upvoted 3 times

 **nik351** 3 months, 3 weeks ago

Databases and applications are often backed up directly to a file server on premises. File Gateway presents a file interface that enables customers to store database and application files as durable objects in Amazon S3 using NFS and SMB file protocol. From your on-premises data center or Amazon EC2, you can seamlessly access your backed-up database and application files in Amazon S3 via NFS and SMB.

upvoted 2 times

Question #283

Topic 1

A company has developed a microservices application. It uses a client-facing API with Amazon API Gateway and multiple internal services hosted on Amazon

EC2 instances to process user requests. The API is designed to support unpredictable surges in traffic, but internal services may become overwhelmed and unresponsive for a period of time during surges. A solutions architect needs to design a more reliable solution that reduces errors when internal services become unresponsive or unavailable.

Which solution meets these requirements?

- A. Use AWS Auto Scaling to scale up internal services when there is a surge in traffic.
- B. Use different Availability Zones to host internal services. Send a notification to a system administrator when an internal service becomes unresponsive.
- C. Use an Elastic Load Balancer to distribute the traffic between internal services. Configure Amazon CloudWatch metrics to monitor traffic to internal services.
- D. Use Amazon Simple Queue Service (Amazon SQS) to store user requests as they arrive. Change the internal services to retrieve the requests from the queue for processing.

Correct Answer: D

 **algreat** Highly Voted 4 months, 2 weeks ago

D, because "reduces errors when internal services become unresponsive or unavailable." means it's ok when they are unavailable, just need not to loose requests
upvoted 19 times

 **AK003** 4 months, 2 weeks ago

Exactly, they don't want to miss the requests when there is a period of unavailability. Ans::D
upvoted 4 times

 **1naccurate** Highly Voted 4 months, 2 weeks ago

my take is D: SQS -> API Gateway as the single point of entry -> multiple internal services
upvoted 11 times

 **chxzqw** Most Recent 1 month ago

don't understand here regarding AutoScaling, so what is scale out and scale in ?
upvoted 1 times

 **gmsaiaws** 2 months ago

My Take will be B. since they are asking how to reduce errors when the systems are unresponsive. which means they know the instances are getting unresponsive and want to minimize them.
upvoted 1 times

 **zek** 2 months ago

Answer is A
upvoted 1 times

 **letmein2** 3 weeks, 5 days ago

A is incorrect because it is to scale up, not scale out.
upvoted 2 times

 **Abdullah777** 2 months, 3 weeks ago

spike , unpredictable surge or any thing like this, autoscaling doesn't work with it. only ques work here. D
upvoted 2 times

 **letmein2** 3 weeks, 5 days ago

A with target tracking scaling policy doesn't work?
upvoted 1 times

 **letmein2** 3 weeks, 5 days ago

A is incorrect because it is to scale up, not scale out.
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

<https://aws.amazon.com/sqs/>:
"Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications"

The surges in traffic can be due to the microservice being too large for the ec2 instances to handle when requests come in

Auto Scaling to scale OUT not IN so A is wrong
B and C are wrong for sure

Just my thoughts
upvoted 3 times

✉ **syu31svc** 2 months, 4 weeks ago

Answer is D to conclude
upvoted 1 times

✉ **Ni_yot** 3 months, 1 week ago

Classic decoupling question to me. So Ans = D
upvoted 1 times

✉ **Atanu_M** 4 months ago

D. As it decouples the API gateway from any underlying computing. ASG on its own can't resolve it has to be combined with a ALB and even after that D is better answer as it can deal with the scenario when all EC2 is down for fraction of sec/min.
upvoted 5 times

✉ **CCNPWILL** 4 months, 2 weeks ago

Answer is D
upvoted 3 times

✉ **ahmedzeddini** 4 months, 2 weeks ago

D
when internal services become unresponsive or unavailable.
So we can use Decoupling with SQS to fix the problem
upvoted 4 times

✉ **DrCloud** 4 months, 2 weeks ago

A. AWS Auto Scaling
This is a performance problem: unpredictable surges in traffic, but internal services may become overwhelmed and unresponsive for a period of time during surges.
Reference: <https://aws.amazon.com/autoscaling/>
upvoted 5 times

✉ **pizo1993** 3 months ago

AWS AutoScaling is used to scale out not to scale up. So the correct answer is D.
upvoted 2 times

✉ **ganj** 4 months, 2 weeks ago

Ans: A
upvoted 2 times

✉ **ganj** 4 months, 2 weeks ago

Ans: C
upvoted 1 times

✉ **CountryGent** 4 months, 2 weeks ago

Loadbalancer may help only if there are underutilized instances available. SQS acts as a buffer for request surges.
upvoted 3 times

✉ **toto059** 4 months, 2 weeks ago

maybe C
upvoted 1 times

Question #284

Topic 1

A company is hosting 60 TB of production-level data in an Amazon S3 bucket. A solution architect needs to bring that data on premises for quarterly audit requirements. This export of data must be encrypted while in transit. The company has low network bandwidth in place between AWS and its on-premises data center.

What should the solutions architect do to meet these requirements?

- A. Deploy AWS Migration Hub with 90-day replication windows for data transfer.
- B. Deploy an AWS Storage Gateway volume gateway on AWS. Enable a 90-day replication window to transfer the data.
- C. Deploy Amazon Elastic File System (Amazon EFS), with lifecycle policies enabled, on AWS. Use it to transfer the data.
- D. Deploy an AWS Snowball device in the on-premises data center after completing an export job request in the AWS Snowball console.

Correct Answer: B

 **toto059** Highly Voted 4 months, 2 weeks ago

D is correct because is low band
upvoted 21 times

 **CCNPWILL** 4 months, 2 weeks ago

Great Job. The Answer is clearly D here. Snowball is PETABYTE Scale according to Neal Davis. This meets low BW reqs also and security component.
upvoted 7 times

 **algreat** Highly Voted 4 months, 2 weeks ago

D looks good. 60TB is a lot to transfer. There are no such term "replication window" for AWS Storage Gateway.
upvoted 8 times

 **letmein2** 3 weeks, 5 days ago

I think the size of a snowball is 50TB or 80TB. so it is enough by ordering 1.
upvoted 1 times

 **reliquary** Most Recent 2 weeks, 4 days ago

came up in my exam yesterday
i picked D
upvoted 2 times

 **KSrikantan** 4 weeks ago

The answer is 'D'. Please refer to <https://docs.aws.amazon.com/snowball/latest/ug/create-export-job.html>
upvoted 1 times

 **Raksim** 1 month ago

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

Usage Scenario

Expedited bulk transfer of data to or from Amazon S3. Snowball helps transfer data in situations where you have connectivity limitations, bandwidth constraints, high network connection costs, legacy environment challenges, and when data is collected in remote locations. Snowball can transport multiple terabytes of data and multiple devices can be used in parallel or clustered together to transfer petabytes of data into or out of AWS.

upvoted 3 times

 **Akwex** 2 months ago

I think B is feasible.
The questions talks about bringing data from S3 to the client's premises. It is not exporting data from client's on premise to AWS S3. Otherwise the latter would have been correct.
upvoted 2 times

 **andwill1001** 6 days, 8 hours ago

Snowball isn't just for sending to AWS S3. You can also request an export job using Snowball do with as you please. Read D again.
upvoted 1 times

 **sangu1** 2 months, 1 week ago

The question ask us to bring the data can you tell me is snowball can bring data from aws to on prem
upvoted 1 times

 **TAvenger** 2 months ago

Just try to google a little. <https://aws.amazon.com/snowball/>
Easy data movement
You can use it to move things... especially when network conditions prevent realistic timelines for transferring large amounts of data both INTO AND OUT of AWS.

upvoted 2 times

✉ **jkwek** 2 months, 1 week ago

Answer is D.

Reason is AWS Snowball with the Snowball device has the following features:

80 TB and 50 TB models are available in US Regions; 50 TB model available in all other AWS Regions.

<https://docs.aws.amazon.com/snowball/latest/ug/whatissnowball.html>

upvoted 2 times

✉ **leliodesouza** 2 months, 3 weeks ago

The correct answer is D.

upvoted 1 times

✉ **Abdullah777** 2 months, 3 weeks ago

what 90 days here. it is D.

upvoted 1 times

✉ **Arnaud35890** 2 months, 3 weeks ago

The only reason why I have doubts about AWS Snowball is the size limitation.

They are mentioning "a" AWS Snowball, and the size limitation is 50TB (snowball Edge limitation is higher, but that's not what is mentioned in this case...)

<https://docs.aws.amazon.com/snowball/latest/ug/specifications.html>

upvoted 1 times

✉ **Rupesh1987** 2 months, 2 weeks ago

Snowball also comes in 80TB capacity. It differs based on region.

upvoted 1 times

✉ **syu31svc** 2 months, 4 weeks ago

catch to the qn is "low network bandwidth"

Answer is D; use Snowball for 60TB of data

upvoted 2 times

✉ **Yogi** 3 months, 2 weeks ago

Ans = D

Export from S3 to on-prem

upvoted 1 times

✉ **Yogi** 3 months, 3 weeks ago

Ans=D. Deploy an AWS Snowball device in the on-premises data center after completing an export job request in the AWS Snowball console.

upvoted 1 times

✉ **Berlinersp** 4 months ago

To restore data to Storage Gateway you have to mount EBS per EBS as a volume to the Gateway what it's a hard job.. look to this:
How do I restore a snapshot to a gateway?

A: Each snapshot is given a unique identifier that you can view using the AWS Management Console. You can create AWS Storage Gateway or Amazon EBS volumes based on any of your existing snapshots by specifying this unique identifier.

Using the AWS Management Console, you can create a new volume from a snapshot you've stored in Amazon S3. You can then mount this volume as an iSCSI device to your on-premises application server.

Because cached volumes store your primary data in Amazon S3, when creating a new volume from a snapshot, your gateway keeps the snapshot data in Amazon S3 where it becomes the primary data for your new volume.

Because stored volumes store your primary data locally, when creating a new volume from a snapshot, your gateway downloads the data contained within the snapshot to your local hardware. There it becomes the primary data for your new volume.

upvoted 1 times

✉ **Atanu_M** 4 months ago

D: Data can be exported from Amazon S3 with Snowball as well

<https://docs.aws.amazon.com/snowball/latest/ug/create-export-job-steps.html>

- This is good business case as low bandwidth connection

Migration hub is for complete application portfolio migration

upvoted 5 times

✉ **liquen14** 4 months, 1 week ago

I think it is D: Exporting Data from Amazon S3 with Snowball

<https://docs.aws.amazon.com/snowball/latest/ug/create-export-job-steps.html>

upvoted 3 times

Question #285

Topic 1

A company uses Amazon S3 to store its confidential audit documents. The S3 bucket uses bucket policies to restrict access to audit team IAM user credentials according to the principle of least privilege. Company managers are worried about accidental deletion of documents in the S3 bucket and want a more secure solution.

What should a solutions architect do to secure the audit documents?

- A. Enable the versioning and MFA Delete features on the S3 bucket.
- B. Enable multi-factor authentication (MFA) on the IAM user credentials for each audit team IAM user account.
- C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3:DeleteObject action during audit dates.
- D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit team IAM user accounts from accessing the KMS key.

Correct Answer: A

Reference:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/security-best-practices.html>

 **toto059** Highly Voted 4 months, 2 weeks ago

A is correct
upvoted 16 times

 **KK_uniq** Most Recent 2 months, 1 week ago

A for sure
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

"accidental deletion of documents in the S3 bucket and want a more secure solution"
101% is A
upvoted 2 times

 **Azeemat** 4 months, 2 weeks ago

Versioning + MFA Delete
upvoted 3 times

 **Lunchb0ne** 4 months, 2 weeks ago

A all the way
upvoted 2 times

 **algreat** 4 months, 2 weeks ago

Answer is A
upvoted 3 times

 **reddy535** 4 months, 2 weeks ago

A is the correct answer.
upvoted 3 times

 **leonardoy** 4 months, 2 weeks ago

A for sure
upvoted 3 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's A
upvoted 2 times

Question #286

Topic 1

A solutions architect is designing a new API using Amazon API Gateway that will receive requests from users. The volume of requests is highly variable; several hours can pass without receiving a single request. The data processing will take place asynchronously, but should be completed within a few seconds after a request is made.

Which compute service should the solutions architect have the API invoke to deliver the requirements at the lowest cost?

- A. An AWS Glue job
- B. An AWS Lambda function
- C. A containerized service hosted in Amazon Elastic Kubernetes Service (Amazon EKS)
- D. A containerized service hosted in Amazon ECS with Amazon EC2

Correct Answer: B

 **toto059** Highly Voted 4 months, 2 weeks ago

B is correct
upvoted 17 times

 **Andy85** Most Recent 2 months, 1 week ago

B the ans.
upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

B for sure
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

100% is B
upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

API Gw if often paried with Lambda
upvoted 4 times

 **Lunchb0ne** 4 months, 2 weeks ago

BBBBBBBBBBBBBBBBBB
upvoted 3 times

 **algreat** 4 months, 2 weeks ago

B is correct
upvoted 2 times

 **leonardoy** 4 months, 2 weeks ago

B for sure
upvoted 3 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's obviously B
upvoted 2 times

Question #287

Topic 1

A company hosts its application in the AWS Cloud. The application runs on Amazon EC2 instances behind an Elastic Load Balancer in an Auto Scaling group and with an Amazon DynamoDB table. The company wants to ensure the application can be made available in another AWS Region with minimal downtime.

What should a solutions architect do to meet these requirements with the LEAST amount of downtime?

- A. Create an Auto Scaling group and a load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.
- B. Create an AWS CloudFormation template to create EC2 instances, load balancers, and DynamoDB tables to be executed when needed. Configure DNS failover to point to the new disaster recovery Region's load balancer.
- C. Create an AWS CloudFormation template to create EC2 instances and a load balancer to be executed when needed. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.
- D. Create an Auto Scaling group and load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Create an Amazon CloudWatch alarm to trigger an AWS Lambda function that updates Amazon Route 53 pointing to the disaster recovery load balancer.

Correct Answer: D

✉  **liquen14** Highly Voted 4 months, 1 week ago

In my opinion it has to be A.

They are talking about "LEAST amount of downtime". Therefore B and C must be ruled out because they involve some downtime while executing the CloudFormation template.

D is like B in a way: both have the same resources already created in the DR region but D is using a contrived and artificial method of switching the DNS configuration instead of the natural one: Failover routing. Have a look at:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html#routing-policy-failover>
upvoted 26 times

✉  **reliquary** 3 weeks, 2 days ago

how do you keep EC2 in the DR region sync/up to date before a disaster happens?
upvoted 1 times

✉  **rlandire** Highly Voted 4 months, 1 week ago

Maybe this link can help:
<https://docs.aws.amazon.com/wellarchitected/latest/reliability-pillar/plan-for-disaster-recovery-dr.html>

For me, option A means having the resources in the second region already created (active-active strategy).
upvoted 15 times

✉  **Junyafu** Most Recent 1 month ago

Should be A.
See the URL below, explaining health check function of Route 53.
<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover.html>
upvoted 1 times

✉  **jkwek** 2 months, 1 week ago

D is correct. switching DNS via route53 using lambda function is more like an AWS feature. This look like a repeated modified question earlier.
<https://aws.amazon.com/route53/>

Highly available and reliable
Amazon Route 53 is built using AWS's highly available and reliable infrastructure. The distributed nature of our DNS servers helps ensure a consistent ability to route your end users to your application. Features such as Amazon Route 53 Traffic Flow help you improve reliability with easy configuration of failover to re-route your users to an alternate location if your primary application endpoint becomes unavailable.

upvoted 3 times

✉  **TAvenger** 2 months ago

"A" is correct.
In your case Route53 will be updated only when a problem happens. In order changes are applied in Route53 you will need for some amount of time. It may take a lot of time.
in case of "A" Route53 is already configured and will use failover configuration only in case of a problem
upvoted 2 times

✉  **syscao** 2 months, 2 weeks ago

to those who think of A, if EC2 are created already in different region, then after configuring failover, there will be NO downtime at all. with minimal down time won't be happening

the answer must be C

upvoted 3 times

 **freetmun05** 2 months, 1 week ago

you forget about health checks delay, so it will be a downtime , short one

upvoted 1 times

 **Abdullah777** 2 months, 3 weeks ago

"the application can be made available in another AWS Region with minimal downtime" they dont want to make it available now. they dont have intention to Haigh available otherwise they would create the application in other reign and and made it redundant. they want fast way that can create their application again in case they lost the first one or they want to extend the application. I think cloudformatin is the only solution here. the problem here that they mention that the DNS pointing to the new region. I dont know if we can point the failover to the reign we didn't create anything in it yet.

upvoted 1 times

 **syscao** 2 months, 2 weeks ago

I think you can point the failover to the name of ELB that is created in CloudFromation.

the answer should be C

upvoted 1 times

 **Jonycici** 2 months, 3 weeks ago

AAAAAAAAAAAAAAA

upvoted 1 times

 **Arnaud35890** 2 months, 3 weeks ago

to me D is correct for the following reasons:

- You already created your infra in the recovery region (so no need to wait for cloud formation to load the recovery environment)
- Dynamo DB is set as global
- You don't have to manually configure the DNS change

This solution offers to me the quickest recovery even if it's also the most expensive solution but the question does not mention for the solution to be cost-effective.

upvoted 4 times

 **KeithBel** 2 months, 3 weeks ago

"application can be made available", we can create appln in disaster recovery region which includes Autoscaling, Load Balancer, and whenever a disaster occurs, using DNS failover it starting pointing to created Resources, "A" is the best choice here. "Hot sit Approach" having lowest RTO and Down Time.

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

I would go for the use of CloudFormation since it reduces time to set up your infrastructure as compared to having manually deploy resource by resource; A and D are out

Between B and C, I'd take C since "DynamoDB table as a global table"

<https://aws.amazon.com/dynamodb/global-tables/>

upvoted 1 times

 **waqas** 2 months, 3 weeks ago

Cloudformation takes time.....

upvoted 2 times

 **syu31svc** 2 months, 2 weeks ago

Yes you are right

Answer is A then

upvoted 1 times

 **freetmun05** 2 months, 1 week ago

The problem with A , it does not say anything about EC2 instances, AEG and ELB only.

upvoted 1 times

 **occupatissimo** 2 months, 4 weeks ago

Let's think, using CloudFormation nothing is created until necessary so how to configure route 53 to point to something that doesn't still exist? Then how much time CloudFormation take time to create and fullfill the DynamoDB (especially if the db is big)? This point to rule out B & C. D is clearly wrong.

A make sense because infrastructure is already ready, only to switch dns.

upvoted 4 times

 **kenzerozero** 3 months ago

should be A...

executing cloudFormation template will take some time to established.

upvoted 1 times

 **noahsark** 2 months, 3 weeks ago

yeah should be A. It's faster. Those choosing CloudFormation does not even seem an actual CloudFormation taking very long "few minutes" lol.

AWS is recommending Infra as Code, but the question asked for LEAST amount of downtime. If the question asked for AWS / DR best practices, then answer is CloudFormation.

upvoted 1 times

 **Ni_yot** 3 months, 1 week ago

C - you dont have to wait for downtime before you create the environment. Create it when you are ready using CF with the least effort then its there ready to go. So as an Architect i would create it in advance.

upvoted 1 times

 **TAvenger** 2 months ago

Bad choice.

"A" is correct.

You will not need to make any effort if some disaster happens. The system will automatically handle everything without launching CF templates (manually or automatically).

Just curious, you as an architect, how are you going without any downtime to understand that CF template should be run? Sitting in front of the monitor and refreshing the web page with AWS console? Even in your case you will have to wait for failing health checks (or other triggers). But with option "A" if health checks are failed system will switch to failover configuration and that's it. No need to wait for resources being deployed

upvoted 1 times

 **soti84** 3 months, 1 week ago

I was torn between A and D but as one of the commenters below observed, you do not need CloudWatch as Route 53 already has health checks so it must be A.

upvoted 4 times

 **Andy85** 4 months, 1 week ago

I go with C, AWS Recomends always using Infraestructure as a code

<https://docs.aws.amazon.com/whitepapers/latest/modern-application-development-on-aws/managing-infrastructure-as-code.html>

upvoted 3 times

 **EarlBrillantes061816** 4 months, 1 week ago

<https://aws.amazon.com/blogs/networking-and-content-delivery/performing-route-53-health-checks-on-private-resources-in-a-vpc-with-aws-lambda-and-amazon-cloudwatch/>

upvoted 1 times

 **EarlBrillantes061816** 4 months, 1 week ago

why A? we use Route 53 to do a fail over in a different region since Load balancers are not capable to do it. D is the one that makes sense among the choices.

upvoted 1 times

Question #288

Topic 1

A business application is hosted on Amazon EC2 and uses Amazon S3 for encrypted object storage. The chief information security officer has directed that no application traffic between the two services should traverse the public internet.
Which capability should the solutions architect use to meet the compliance requirements?

- A. AWS Key Management Service (AWS KMS)
- B. VPC endpoint
- C. Private subnet
- D. Virtual private gateway

Correct Answer: B

 **toto059** Highly Voted 4 months, 2 weeks ago

B is correct
upvoted 17 times

 **CCNPWILL** Highly Voted 4 months, 2 weeks ago

NOT traversing the www = ENDPOINTS
upvoted 6 times

 **Yogi** 3 months, 2 weeks ago

S3 & DynamoDb are the only ones that permit VP endpoints
<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/vpc-endpoints-dynamodb.html>
upvoted 1 times

 **sarah_t** 2 months, 3 weeks ago

almost: the only ones that permit gateway endpoints (which are free).
you can have interface endpoints for other services too (they're not free though).
upvoted 1 times

 **Ivan_KI** Most Recent 1 month, 3 weeks ago

Why the suggested answer is A, as all pointing Bas correct one (me also) ?!
upvoted 1 times

 **jkwek** 2 months, 1 week ago

B is answer.
<https://docs.aws.amazon.com/vpc/latest/privatelink/vpc-endpoints.html>
upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

B is ok
upvoted 1 times

 **ansh18061986** 2 months, 1 week ago

Correct answer is B
upvoted 1 times

 **stefanc** 2 months, 1 week ago

<https://tomgregory.com/when-to-use-an-aws-s3-vpc-endpoint/>

Ans: B
upvoted 1 times

 **aesr10** 2 months, 2 weeks ago

What does kms has to see with traffic traversing over internet...? ANS IS B
upvoted 1 times

 **leliodesouza** 2 months, 3 weeks ago

The correct answer is B.
upvoted 1 times

 **Tun_AWS** 2 months, 4 weeks ago

B for me
upvoted 2 times

 **syu31svc** 2 months, 4 weeks ago

101% is B

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. <https://aws.amazon.com/vpc/faqs/>

upvoted 2 times

 **dave0808** 4 months ago

B all the way

upvoted 3 times

 **AK003** 4 months, 2 weeks ago

BBBBBB

upvoted 5 times

 **leonardoy** 4 months, 2 weeks ago

Maybe A

upvoted 1 times

 **leonardoy** 4 months, 2 weeks ago

i mean B

upvoted 3 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's B

upvoted 3 times

Question #289

Topic 1

A solutions architect is designing a solution that requires frequent updates to a website that is hosted on Amazon S3 with versioning enabled. For compliance reasons, the older versions of the objects will not be accessed frequently and will need to be deleted after 2 years. What should the solutions architect recommend to meet these requirements at the LOWEST cost?

- A. Use S3 batch operations to replace object tags. Expire the objects based on the modified tags.
- B. Configure an S3 Lifecycle policy to transition older versions of objects to S3 Glacier. Expire the objects after 2 years.
- C. Enable S3 Event Notifications on the bucket that sends older objects to the Amazon Simple Queue Service (Amazon SQS) queue for further processing.
- D. Replicate older object versions to a new bucket. Use an S3 Lifecycle policy to expire the objects in the new bucket after 2 years.

Correct Answer: B

 **toto059** Highly Voted 4 months, 2 weeks ago

B is correct

upvoted 13 times

 **DrCloud** Highly Voted 4 months, 2 weeks ago

B.

<https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html>

Object lifecycle management:

1. Transition actions—Define when objects transition to another storage class.
2. Expiration actions—Define when objects expire. Amazon S3 deletes expired objects on your behalf.

upvoted 6 times

 **syu31svc** Most Recent 2 months, 4 weeks ago

101% is B

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Legit answer=B

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

B. Excellent work

upvoted 2 times

 **algreat** 4 months, 2 weeks ago

B

<https://docs.aws.amazon.com/AmazonS3/latest/dev/transitions-object-versions.html>

upvoted 3 times

 **leonardoy** 4 months, 2 weeks ago

B is right

upvoted 3 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's B

upvoted 2 times

Question #290

Topic 1

A company runs an application on an Amazon EC2 instance backed by Amazon Elastic Block Store (Amazon EBS). The instance needs to be available for 12 hours daily. The company wants to save costs by making the instance unavailable outside the window required for the application. However, the contents of the instance's memory must be preserved whenever the instance is unavailable.

What should a solutions architect do to meet this requirement?

- A. Stop the instance outside the application's availability window. Start up the instance again when required.
- B. Hibernate the instance outside the application's availability window. Start up the instance again when required.
- C. Use Auto Scaling to scale down the instance outside the application's availability window. Scale up the instance when required.
- D. Terminate the instance outside the application's availability window. Launch the instance by using a preconfigured Amazon Machine Image (AMI) when required.

Correct Answer: B

 **DrCloud** Highly Voted 4 months, 2 weeks ago

Ans: B

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Hibernate.html>

1. Hibernate: To preserve contents of the instance's memory whenever the instance is unavailable.

<https://aws.amazon.com/blogs/aws/new-hibernate-your-ec2-instances/>

2. Cost consideration: While the instance is in hibernation, you pay only for the EBS volumes and Elastic IP Addresses attached to it; there are no other hourly charges (just like any other stopped instance).

upvoted 24 times

 **leonardoy** Highly Voted 4 months, 2 weeks ago

B. Hibernate

upvoted 5 times

 **syu31svc** Most Recent 2 months, 4 weeks ago

This is B for sure

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

For cost savings & instance preservation, choose hibernate, Ans=B

upvoted 2 times

 **ginoginelli** 4 months, 1 week ago

I agree with B if that "memory" means exactly what it means. A would be ok if we're talking about data on EBS. So why the website says A is right?

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

Answer is B here. clearly.

upvoted 1 times

 **algreat** 4 months, 2 weeks ago

B to save memory after reload

upvoted 3 times

Question #291

Topic 1

A solutions architect is creating a new VPC design. There are two public subnets for the load balancer, two private subnets for web servers, and two private subnets for MySQL. The web servers use only HTTPS. The solutions architect has already created a security group for the load balancer allowing port 443 from

0.0.0.0/0. Company policy requires that each resource has the least access required to still be able to perform its tasks.

Which additional configuration strategy should the solutions architect use to meet these requirements?

- A. Create a security group for the web servers and allow port 443 from 0.0.0.0/0. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- B. Create a network ACL for the web servers and allow port 443 from 0.0.0.0/0. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.
- C. Create a security group for the web servers and allow port 443 from the load balancer. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- D. Create a network ACL for the web servers and allow port 443 from the load balancer. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.

Correct Answer: C

 **toto059** Highly Voted 4 months, 2 weeks ago

C is right

upvoted 18 times

 **algreat** Highly Voted 4 months, 2 weeks ago

C is correct

upvoted 7 times

 **chickenstrips** Most Recent 1 month, 2 weeks ago

CCCCCCCCCCCCc

upvoted 1 times

 **jkwek** 2 months, 1 week ago

C is correct.

Reason is the keywords "each resource has the least access required" and only security groups are stateful and least access required.

upvoted 1 times

 **jkwek** 2 months, 1 week ago

C is correct.

Reasons as below:

Security groups are stateful: This means any changes applied to an incoming rule will be automatically applied to the outgoing rule. e.g. If you allow an incoming port 80, the outgoing port 80 will be automatically opened.

Network ACLs are stateless: This means any changes applied to an incoming rule will not be applied to the outgoing rule. e.g. If you allow an incoming port 80, you would also need to apply the rule for outgoing traffic.

Refer url:

<https://medium.com/awesome-cloud/aws-difference-between-security-groups-and-network-acls-adc632ea29ae>

upvoted 3 times

 **KK_uniq** 2 months, 1 week ago

C is ok

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

C for correct

upvoted 2 times

 **Ni_yot** 3 months ago

Yep C is correct. The web servers and the sql servers are all the private subnet and should not have direct internet access.

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

Ans=A. Create a security group for the web servers and allow port 443 from 0.0.0.0/0. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.

upvoted 1 times

 **waqas** 3 months, 2 weeks ago

C is right...Traffic should be coming via ELB SG not directly (from anywhere). Web servers are behind ELB and in Pvt subnet.

upvoted 6 times

 **dave0808** 4 months ago

C 100%

upvoted 2 times

 **NSF** 4 months, 1 week ago

You can't have the LB as the source but you can have its SG as the source, if you have to specify IP address, range or prefix

upvoted 2 times

 **AK003** 4 months, 2 weeks ago

CCCCCCCCCC

upvoted 3 times

 **leonardoy** 4 months, 2 weeks ago

It is C

upvoted 6 times

Question #292

Topic 1

A company hosts historical weather records in Amazon S3. The records are downloaded from the company's website by a way of a URL that resolves to a domain name. Users all over the world access this content through subscriptions. A third-party provider hosts the company's root domain name, but the company recently migrated some of its services to Amazon Route 53. The company wants to consolidate contracts, reduce latency for users, and reduce costs related to serving the application to subscribers.

Which solution meets these requirements?

- A. Create a web distribution on Amazon CloudFront to serve the S3 content for the application. Create a CNAME record in a Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.
- B. Create a web distribution on Amazon CloudFront to serve the S3 content for the application. Create an ALIAS record in the Amazon Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.
- C. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geolocation rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.
- D. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geoproximity rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.

Correct Answer: B

 **CCNPWILL** Highly Voted 4 months, 2 weeks ago

CNAME is for the real DNS servers we all know and love.

ALIAS is DNS but for AWS specifically. special record for AWS. Answer is B.

upvoted 33 times

 **mahdeo01** 1 week ago

Guys : I highly recommend everyone to go through this one page article that is shared by Maddy (below) >>>
<https://www.whizlabs.com/blog/dns-record>

upvoted 1 times

 **dave0808** 4 months ago

love your explanation thx Will!

upvoted 3 times

 **Maddy_aws2020** Most Recent 2 months, 2 weeks ago

<https://www.whizlabs.com/blog/dns-records/>

This might be useful

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

Answer is B

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/resource-record-sets-choosing-alias-non-alias.html>:

"Amazon Route 53 alias records provide a Route 53-specific extension to DNS functionality. Alias records let you route traffic to selected AWS resources, such as CloudFront distributions and Amazon S3 buckets. They also let you route traffic from one record in a hosted zone to another record."

Unlike a CNAME record, you can create an alias record at the top node of a DNS namespace, also known as the zone apex. For example, if you register the DNS name example.com, the zone apex is example.com. You can't create a CNAME record for example.com, but you can create an alias record for example.com that routes traffic to www.example.com."

upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Create a web distribution on Amazon CloudFront to serve the S3 content for the application. Create an ALIAS record in the Amazon Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.

upvoted 1 times

 **ahmedzeddini** 4 months, 2 weeks ago

B

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-to-cloudfront-distribution.html>

upvoted 1 times

 **algreat** 4 months, 2 weeks ago

B is answer

upvoted 1 times

✉  **leonardoy** 4 months, 2 weeks ago

It is B

upvoted 1 times

✉  **CountryGent** 4 months, 2 weeks ago

A and B don't address the need for the service provider to resolve DNS requests on behalf of Internet users. Geo-proximity provides better routing.

upvoted 1 times

✉  **sarah_t** 2 months, 3 weeks ago

A and B address the latency issue with CloudFront.

And you need to use an Alias record, therefore the answer is B

upvoted 2 times

✉  **ismai1** 4 months, 1 week ago

"A third-party provider hosts the company's root domain name",
you can't use a A Record,

answer is B

upvoted 4 times

✉  **toto059** 4 months, 2 weeks ago

B it should Be

upvoted 1 times

Question #293

Topic 1

A company owns an asynchronous API that is used to ingest user requests and, based on the request type, dispatch requests to the appropriate microservice for processing. The company is using Amazon API Gateway to deploy the API front end, and an AWS Lambda function that invokes Amazon DynamoDB to store user requests before dispatching them to the processing microservices.

The company provisioned as much DynamoDB throughput as its budget allows, but the company is still experiencing availability issues and is losing user requests.

What should a solutions architect do to address this issue without impacting existing users?

- A. Add throttling on the API Gateway with server-side throttling limits.
- B. Use DynamoDB Accelerator (DAX) and Lambda to buffer writes to DynamoDB.
- C. Create a secondary index in DynamoDB for the table with the user requests.
- D. Use the Amazon Simple Queue Service (Amazon SQS) queue and Lambda to buffer writes to DynamoDB.

Correct Answer: B

 **DrCloud** Highly Voted 4 months, 2 weeks ago

D

Company is losing user requests. SQS can help to buffer writes.

upvoted 34 times

 **CCNPWILL** Highly Voted 4 months, 2 weeks ago

The answer is D. We need a Q to hold the requests that would have been otherwise dropped. Answer A costs money doesn't it? i believe it does. that's why i believe its not A. if im wrong correct me,

upvoted 11 times

 **abc123_123** Most Recent 2 weeks, 4 days ago

D > B, since

DAX is not ideal for the following types of applications: Applications that are write-intensive.

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DAX.html>

upvoted 1 times

 **gcrypto** 3 weeks, 5 days ago

bad question, no money and add DAX or SQS cost, SQS is best for decoupling but all two cost money.

upvoted 1 times

 **francisco_guerra** 4 weeks, 1 day ago

Ans D

"Its fault-tolerant architecture ensures that the data is handled in a secure, consistent manner with zero DATA LOSS."

<https://hevodata.com/learn/connect-sqs-to-dynamodb-2-easy-steps/>

upvoted 2 times

 **Raksim** 1 month ago

Since: The company provisioned as much DynamoDB throughput as its budget allows; means the solution can no longer come from DynamoDB but somewhere else hence D is correct.

upvoted 1 times

 **BoyinPH** 1 month, 1 week ago

ITS D, since DAx is good for workload mostly read access to static data

<https://aws.amazon.com/premiumsupport/knowledge-center/dynamodb-table-throttled/>

upvoted 1 times

 **jkwek** 2 months, 1 week ago

Answer is B.

Reason is below url:

<https://aws.amazon.com/dynamodb/dax/>

DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for Amazon DynamoDB that delivers up to a 10 times performance improvement—from milliseconds to microseconds—even at millions of requests per second.

DAX does all the heavy lifting required to add in-memory acceleration to your DynamoDB tables, without requiring developers to manage cache invalidation, data population, or cluster management.

upvoted 2 times

 **KK_uniq** 2 months, 1 week ago

Going with DAX

upvoted 1 times

shyd 2 months, 2 weeks ago

between B&D, I choose D
because, DAX is a write-through cache, which simplifies the process of keeping the DAX item cache consistent with the underlying DynamoDB tables.
DAX is for consistency, SQS queue is good for preventing lose request, (without losing messages) that match the question.
https://aws.amazon.com/sqs/?nc1=h_ls

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DAX.consistency.html>
upvoted 2 times

Maddy_aws2020 2 months, 2 weeks ago

Probable answers are B & D.
In case of DAX, it will accept Putrequest and will write through cache. But it waits for a confirmation from Dynamo db to respond that the request is completed. This might take some time and will start loosing request.
D would be an option where we still hold the request through SQS and it will be consumed later. Clear case of de coupling ?
D for me
upvoted 5 times

Abdullah777 2 months, 3 weeks ago

It is B no qustion in that. Dax is Read/write not only read enhancing.
"As a read-through/write-through cache, DAX seamlessly intercepts the API calls that an application normally makes to DynamoDB so that both read and write activity are reflected in the DAX cache. For you, the API calls are the same, so there's no need to rewrite the application."
<https://aws.amazon.com/blogs/database/amazon-dynamodb-accelerator-dax-a-read-throughwrite-through-cache-for-dynamodb/>
upvoted 2 times

sarah_t 2 months, 3 weeks ago

Write-through caching does not reduce the number of write operations to the DB. It doesn't solve the problem.
upvoted 2 times

Abdullah777 2 months, 3 weeks ago

<https://d2908q01vomqb2.cloudfront.net/887309d048beef83ad3eabf2a79a64a389ab1c9f/2017/06/28/WriteThroughCache-1.png>
upvoted 1 times

Arnaud35890 2 months, 3 weeks ago

To me, B and D are both reasonable answers. I would go for D but I would not be able to rule out B. If anyone has a proper explanation why it should be 1 solution and not the other, I'm interested to know...
upvoted 2 times

waqas 2 months, 3 weeks ago

Put DAX in front of DynamoDB as DAX is write through caching service. This will work with Provisioned throughput to get things easy.
upvoted 1 times

syu31svc 2 months, 4 weeks ago

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DAX.consistency.html>

Answer is B; use DAX

upvoted 2 times

Praps1 3 months ago

It should be D. SQS to ensure data is not lost & Lambda to process asynchronously.
upvoted 3 times

Atanu_M 4 months, 1 week ago

Ans D . SQS is best for decoupling and with API throttling you still ca loose request if it's over the limit and consumer application doesn't handle error 'Too many Req'
upvoted 3 times

AA11 4 months, 1 week ago

DAX will not work as it is a high speed caching service which will help read operations. But here we are writing to DynamoDB before further processing can take place and that is the bottle neck.. Answer is D.
upvoted 3 times

noahsark 3 months, 3 weeks ago

DAX is a write-through caching service that is designed to simplify the process of adding a cache to DynamoDB tables.

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DAX.consistency.html>

upvoted 1 times

Question #294

Topic 1

A company is moving its on-premises applications to Amazon EC2 instances. However, as a result of fluctuating compute requirements, the EC2 instances must always be ready to use between 8 AM and 5 PM in specific Availability Zones.

Which EC2 instances should the company choose to run the applications?

- A. Scheduled Reserved Instances
- B. On-Demand Instances
- C. Spot Instances as part of a Spot Fleet
- D. EC2 instances in an Auto Scaling group

Correct Answer: A

 **CCNPWILL**  4 months, 2 weeks ago

The answer is A.

upvoted 12 times

 **examdummy22** 4 months ago

Scheduled RIs are not available anymore, so we need to think of the next best solution. go study! :D

upvoted 4 times

 **Kampton** 4 months ago

Keep in mind that the exams are not updated as quickly and A is the best option among given. D doesn't make any sense as regardless on-demand or reserved u will be using EC2 instance.

upvoted 9 times

 **zxing233**  3 weeks ago

A is not available anymore. I think should be D with scheduled scaling

https://docs.aws.amazon.com/autoscaling/ec2/userguide/schedule_time.html

upvoted 1 times

 **bluetaurianbull** 3 weeks, 2 days ago

I think keyword is "as a result of fluctuating compute requirements" - if its (A) there is no way compute capacity can be increased - isn't it? Shouldn't it be (B) which allows to increase capacity should there be any need ??

upvoted 1 times

 **patriktre** 3 weeks, 5 days ago

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-scheduled-instances.html>

Important

We do not have any capacity for purchasing Scheduled Reserved Instances or any plans to make it available in the future. To reserve capacity, use On-Demand Capacity Reservations instead.

upvoted 1 times

 **welly50704** 2 months, 1 week ago

C. Spot Instances as part of a Spot Fleet

We don't know how many RI we should purchase.

What is a Spot fleet?

A Spot Fleet allows you to automatically request and manage multiple Spot instances that provide the lowest price per unit of capacity for your cluster or application, like a batch processing job, a Hadoop workflow, or an HPC grid computing job. You can include the instance types that your application can use. You define a target capacity based on your application needs (in units including instances, vCPUs, memory, storage, or network throughput) and update the target capacity after the fleet is launched. Spot fleets enable you to launch and maintain the target capacity, and to automatically request resources to replace any that are disrupted or manually terminated.

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

A for sure

upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

This is 100% A

upvoted 2 times

 **Yogi** 3 months, 3 weeks ago

A is correct.

upvoted 1 times

 **kumar1976** 4 months, 2 weeks ago

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-scheduled-instances.html>

SRLs capacity not available to purchase.

upvoted 4 times

 **algreat** 4 months, 2 weeks ago

It can be B because of "fluctuating compute requirements". What if in a month requirements will change?

upvoted 1 times

 **CCNPWILL** 4 months, 2 weeks ago

thats why its NOT B. because of what you said ' WHAT IF '

upvoted 3 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's A

upvoted 1 times

 **toto059** 4 months, 2 weeks ago

A for sure

upvoted 2 times

Question #295

Topic 1

A company is launching a new application deployed on an Amazon Elastic Container Service (Amazon ECS) cluster and is using the Fargate launch type for ECS tasks. The company is monitoring CPU and memory usage because it is expecting high traffic to the application upon its launch. However, the company wants to reduce costs when utilization decreases.

What should a solutions architect recommend?

- A. Use Amazon EC2 Auto Scaling to scale at certain periods based on previous traffic patterns.
- B. Use an AWS Lambda function to scale Amazon ECS based on metric breaches that trigger an Amazon CloudWatch alarm.
- C. Use Amazon EC2 Auto Scaling with simple scaling policies to scale when ECS metric breaches trigger an Amazon CloudWatch alarm.
- D. Use AWS Application Auto Scaling with target tracking policies to scale when ECS metric breaches trigger an Amazon CloudWatch alarm.

Correct Answer: D

 **Ddog1008** Highly Voted 4 months, 2 weeks ago

D: auto-scaling with target tracking

upvoted 11 times

 **jkwek** Highly Voted 2 months, 1 week ago

Answer is D.

Reason is within the url:

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/service-autoscaling-targettracking.html>

With target tracking scaling policies, you select a metric and set a target value. Amazon ECS Service Auto Scaling creates and manages the CloudWatch alarms that trigger the scaling policy and calculates the scaling adjustment based on the metric and the target value. The scaling policy adds or removes service tasks as required to keep the metric at, or close to, the specified target value. In addition to keeping the metric close to the target value, a target tracking scaling policy also adjusts to the fluctuations in the metric due to a fluctuating load pattern and minimizes rapid fluctuations in the number of tasks running in your service.

upvoted 7 times

 **syu31svc** Most Recent 2 months, 4 weeks ago

<https://docs.aws.amazon.com/autoscaling/application/userguide/what-is-application-auto-scaling.html>:

"Application Auto Scaling is a web service for developers and system administrators who need a solution for automatically scaling their scalable resources for individual AWS services beyond Amazon EC2. Application Auto Scaling allows you to configure automatic scaling for the following resources:

AppStream 2.0 fleets

Aurora replicas

Amazon Comprehend document classification and entity recognizer endpoints

DynamoDB tables and global secondary indexes

Amazon Elastic Container Service (ECS) services"

Answer is D

upvoted 4 times

 **Yogi** 3 months, 3 weeks ago

Ans=D. Use AWS Application Auto Scaling with target tracking policies to scale when ECS metric breaches trigger an Amazon CloudWatch alarm.
upvoted 1 times

 **Berlinersp** 4 months ago

And use the Fargate option on ECS which means it doesn't use EC2 instances. So it's D

upvoted 2 times

 **ginoginelli** 4 months, 1 week ago

Why the website indicates A as a correct answer when it's clearly D?

upvoted 2 times

 **Atanu_M** 4 months, 1 week ago

D. ECS with Fargate launch type supports autoscaling with target tracking.

upvoted 1 times

 **Sam82** 4 months, 1 week ago

D is the answer

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/service-autoscaling-targettracking.html>

upvoted 3 times

✉️  **AK003** 4 months, 2 weeks ago

Auto Scaling with target tracking ::D
upvoted 1 times

✉️  **algreat** 4 months, 2 weeks ago

should be D
upvoted 1 times

✉️  **DrCloud** 4 months, 2 weeks ago

D
<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/service-auto-scaling.html>
Amazon ECS Service Auto Scaling supports the following types of automatic scaling:
1. Target Tracking Scaling Policies
2. Step Scaling Policies
3. Scheduled Scaling
upvoted 4 times

✉️  **Deeputhegreat** 4 months, 2 weeks ago

Its D for sure
upvoted 1 times

✉️  **CountryGent** 4 months, 2 weeks ago

I guess at the time of this ECS autoscale hadn't been released. <https://aws.amazon.com/blogs/aws/aws-ecs-cluster-auto-scaling-is-now-generally-available/>
upvoted 3 times

✉️  **toto059** 4 months, 2 weeks ago

why not D
upvoted 1 times

Question #296

Topic 1

A company is building an application on Amazon EC2 instances that generates temporary transactional data. The application requires access to data storage that can provide configurable and consistent IOPS.

What should a solutions architect recommend?

- A. Provision an EC2 instance with a Throughput Optimized HDD (st1) root volume and a Cold HDD (sc1) data volume.
- B. Provision an EC2 instance with a Throughput Optimized HDD (st1) volume that will serve as the root and data volume.
- C. Provision an EC2 instance with a General Purpose SSD (gp2) root volume and Provisioned IOPS SSD (io1) data volume.
- D. Provision an EC2 instance with a General Purpose SSD (gp2) root volume. Configure the application to store its data in an Amazon S3 bucket.

Correct Answer: C

 **CountryGent** Highly Voted 4 months, 2 weeks ago

C is my answer: Only gp3, io1, or io2 Volumes have configurable IOPS.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volumes.html>
upvoted 19 times

 **Sam82** Highly Voted 4 months, 1 week ago

Answer is C.
Please note that you cannot add HDD in root volume. SSD needs to be selected as root volume and HDD as Data Volume. Based on options given C is best answer
upvoted 10 times

 **reliquary** 1 month, 2 weeks ago

You CAN have HDD as root volume, even though A & B are not the right answer :
You can launch an instance from either an instance store-backed AMI or an Amazon EBS-backed AMI. The description of an AMI includes which type of AMI it is; you'll see the root device referred to in some places as either ebs (for Amazon EBS-backed) or instance store (for instance store-backed). This is important because there are significant differences between what you can do with each type of AMI. For more information about these differences, see Storage for the root device.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/RootDeviceStorage.html>
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>
upvoted 1 times

 **Kampton** 4 months ago

Excellent point!
upvoted 2 times

 **Goozian** Most Recent 1 week, 5 days ago

consistent IOPS = io1/2
upvoted 1 times

 **KittuCheeku** 1 month ago

C would be the best option
upvoted 1 times

 **jkwek** 2 months, 1 week ago

C is the answer.
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html>
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

A and D are out; Cold HDD and S3 not wanted for sure

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html#EBSVolumeTypes_st1:
"Throughput Optimized HDD (st1) volumes provide low-cost magnetic storage that defines performance in terms of throughput rather than IOPS."

Answer is C

upvoted 1 times

 **Yogi** 3 months, 3 weeks ago

Ans=C. Provision an EC2 instance with a General Purpose SSD (gp2) root volume and Provisioned IOPS SSD (io1) data volume.
upvoted 1 times

 **Andy85** 4 months, 1 week ago

C for me
upvoted 1 times

 **sjmsummer** 4 months, 2 weeks ago

I choose C because HDD does not provide consistent IOPS.

upvoted 3 times

 **Lunchb0ne** 4 months, 2 weeks ago

C

because consistent IOPS

upvoted 1 times

 **algreat** 4 months, 2 weeks ago

C because of "configurable and consistent IOPS"

upvoted 1 times

 **DrCloud** 4 months, 2 weeks ago

C

1. gp2: root volume
2. io1: can provide configurable and consistent IOPS

upvoted 4 times

 **toto059** 4 months, 2 weeks ago

B good option

upvoted 1 times

Question #297

Topic 1

A solutions architect needs to design a resilient solution for Windows users' home directories. The solution must provide fault tolerance, file-level backup and recovery, and access control, based upon the company's Active Directory.

Which storage solution meets these requirements?

- A. Configure Amazon S3 to store the users' home directories. Join Amazon S3 to Active Directory.
- B. Configure a Multi-AZ file system with Amazon FSx for Windows File Server. Join Amazon FSx to Active Directory.
- C. Configure Amazon Elastic File System (Amazon EFS) for the users' home directories. Configure AWS Single Sign-On with Active Directory.
- D. Configure Amazon Elastic Block Store (Amazon EBS) to store the users' home directories. Configure AWS Single Sign-On with Active Directory.

Correct Answer: B

 **toto059** Highly Voted 4 months, 2 weeks ago

B for Sure EFS for Linux
upvoted 20 times

 **CCNPWILL** Highly Voted 4 months, 2 weeks ago

WINDOWS = FSx
upvoted 9 times

 **BillG099** Most Recent 1 month, 1 week ago

Amazon EFS with "Windows EC2 instances" isn't supported. However, Amazon EFS supports the Network File System versions 4.0 and 4.1 (NFSv4) protocols when mounting your file systems on Amazon EC2 instances. NFSv4.1 provides better performance. Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019 use Server NFS, versions NFSv2, NFSv3, NFSv 4.1 + AWS SSO, the answer should be C

upvoted 1 times

 **jkwek** 2 months, 1 week ago

Answer is B.
Reason inside url:
<https://docs.aws.amazon.com/fsx/latest/WindowsGuide/what-is.html>
Amazon FSx for Windows File Server provides fully managed Microsoft Windows file servers, that are backed by a fully native Windows file system. When using Amazon FSx for Windows File Server together with ECS, you can provision your Windows tasks with persistent, distributed, shared, static file storage

upvoted 1 times

 **KK_uniq** 2 months, 1 week ago

B for sure
upvoted 1 times

 **syu31svc** 2 months, 4 weeks ago

This is 100% B; Windows is the giveaway word here
upvoted 3 times

 **Yogi** 3 months, 3 weeks ago

Ans=B. Configure a Multi-AZ file system with Amazon FSx for Windows File Server. Join Amazon FSx to Active Directory.
<https://docs.aws.amazon.com/fsx/latest/WindowsGuide/what-is.html>
upvoted 1 times

 **ginoginelli** 4 months, 1 week ago

Why the website indicates C which is EFS for Linux? I don't understand!
upvoted 1 times

 **Kampton** 4 months ago

so that you do your home work and study to learn
upvoted 5 times

 **Atanu_M** 4 months, 1 week ago

B - Amazon FSx for Windows File Server + AD
upvoted 1 times

 **AK003** 4 months, 2 weeks ago

BBBBBBBBBBB
upvoted 1 times

 **algreat** 4 months, 2 weeks ago

B is ok

upvoted 2 times

 **Deeputhegreat** 4 months, 2 weeks ago

It should be B for Windows

upvoted 2 times

 **CountryGent** 4 months, 2 weeks ago

B: Windows + AD under normal circumstances means FSx.

upvoted 1 times

 **Kirin** 4 months, 2 weeks ago

why not B ?

upvoted 1 times

 **Kirin** 4 months, 2 weeks ago

EFS not supported Microsoft Windows , FSx is for Windows, hence B.

upvoted 7 times

Question #298

Topic 1

A company wants to move a multi-tiered application from on premises to the AWS Cloud to improve the application's performance. The application consists of application tiers that communicate with each other by way of RESTful services. Transactions are dropped when one tier becomes overloaded. A solutions architect must design a solution that resolves these issues and modernizes the application. Which solution meets these requirements and is the MOST operationally efficient?

- A. Use Amazon API Gateway and direct transactions to the AWS Lambda functions as the application layer. Use Amazon Simple Queue Service (Amazon SQS) as the communication layer between application services.
- B. Use Amazon CloudWatch metrics to analyze the application performance history to determine the server's peak utilization during the performance failures. Increase the size of the application server's Amazon EC2 instances to meet the peak requirements.
- C. Use Amazon Simple Notification Service (Amazon SNS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group. Use Amazon CloudWatch to monitor the SNS queue length and scale up and down as required.
- D. Use Amazon Simple Queue Service (Amazon SQS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group. Use Amazon CloudWatch to monitor the SQS queue length and scale up when communication failures are detected.

Correct Answer: D

✉  **CountryGent** Highly Voted 4 months, 2 weeks ago

I think it's A as it both decouples (modernizes) the application using SQS, and provides scalability through Lambda.

upvoted 43 times

✉  **CCNPWILL** 4 months, 2 weeks ago

Nice work country man. Answer is indeed A. It modernizes the app. choice D fails to do so.

upvoted 16 times

✉  **syu31svc** Highly Voted 2 months, 4 weeks ago

I would take A

"RESTful services" -> API gateway to be used

upvoted 5 times

✉  **zxing233** Most Recent 3 weeks ago

reprogram all your application to run in LAMBDA is called "operationally efficient"?

upvoted 1 times

✉  **jealbave** 1 month ago

A or D

upvoted 3 times

✉  **Gupshup** 1 month, 1 week ago

API -> Api Gateway
transaction drop -> SQS
Modernize -> serverless
looks like A.

upvoted 1 times

✉  **ansh18061986** 2 months, 1 week ago

I will go with A.

upvoted 2 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=A. Use Amazon API Gateway and direct transactions to the AWS Lambda functions as the application layer. Use Amazon Simple Queue Service (Amazon SQS) as the communication layer between application services.

upvoted 1 times

✉  **Ajits** 3 months ago

A as its Restful services
upvoted 3 times

✉  **Nguyen** 3 months, 3 weeks ago

I believe D is correct , "That's because the number of messages in your SQS queue does not solely define the number of instances needed. The number of instances in your Auto Scaling group can be driven by multiple factors, including how long it takes to process a message and the acceptable amount of latency (queue delay)."

--> need Cloud Watch, please look a reference below

<https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-using-sqs-queue.html>

upvoted 2 times

✉️ **TAvenger** 2 months ago

Are you kidding?

"scale up when communication failures are detected. " ? Why do you wait for failures when you can avoid them?

upvoted 3 times

✉️ **lovelylone** 2 months ago

Absolutely right, according to API gateway, why use them in an internal environment,
& also A doesn't include the ability to solve the usage on EC2 instances.

upvoted 1 times

✉️ **ismai1** 4 months, 1 week ago

A meet the requirements, modernization and decouple

upvoted 2 times

✉️ **EarlBrillantes061816** 4 months, 1 week ago

Base on my current work. A works

upvoted 4 times

✉️ **algreat** 4 months, 2 weeks ago

A looks good

upvoted 4 times

✉️ **Deeputhegreat** 4 months, 2 weeks ago

It's D

upvoted 2 times

✉️ **toto059** 4 months, 2 weeks ago

D is correct

upvoted 2 times

Question #299

Topic 1

A company serves a multilingual website from a fleet of Amazon EC2 instances behind an Application Load Balancer (ALB). This architecture is currently running in the us-west-1 Region but is exhibiting high request latency for users located in other parts of the world.

The website needs to serve requests quickly and efficiently regardless of a user's location. However, the company does not want to recreate the existing architecture across multiple Regions.

How should a solutions architect accomplish this?

- A. Replace the existing architecture with a website served from an Amazon S3 bucket. Configure an Amazon CloudFront distribution with the S3 bucket as the origin.
- B. Configure an Amazon CloudFront distribution with the ALB as the origin. Set the cache behavior settings to only cache based on the Accept-Language request header.
- C. Set up Amazon API Gateway with the ALB as an integration. Configure API Gateway to use an HTTP integration type. Set up an API Gateway stage to enable the API cache.
- D. Launch an EC2 instance in each additional Region and configure NGINX to act as a cache server for that Region. Put all the instances plus the ALB behind an Amazon Route 53 record set with a geolocation routing policy.

Correct Answer: B

✉  **DrCloud**  4 months, 2 weeks ago

B

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/header-caching.html>

Configuring caching based on the language of the viewer:

If you want CloudFront to cache different versions of your objects based on the language specified in the request, configure CloudFront to forward the Accept-Language header to your origin.

upvoted 14 times

✉  **AA11** 4 months, 1 week ago

Also we do not know if the website has dynamic content or not. Putting it in S3 means that we have assumed that the website is static.

upvoted 4 times

✉  **CountryGent**  4 months, 2 weeks ago

B for sure. <https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/header-caching.html>

upvoted 6 times

✉  **Gupshup**  1 month, 1 week ago

Answer: B

world wide users -> CF

multi-language -> Accept-Language Request Header.

Does not recreate -> Not A (Replace)

upvoted 3 times

✉  **syu31svc** 2 months, 4 weeks ago

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/header-caching.html#header-caching-web-language>:

"If you want CloudFront to cache different versions of your objects based on the language specified in the request, configure CloudFront to forward the Accept-Language header to your origin."

Answer is B

upvoted 2 times

✉  **Yogi** 3 months, 3 weeks ago

Ans=B. Configure an Amazon CloudFront distribution with the ALB as the origin. Set the cache behavior settings to only cache based on the Accept-Language request header.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/header-caching.html#header-caching-web-language>

upvoted 2 times

✉  **Sam82** 4 months, 1 week ago

Answer is B

Configuring caching based on the language of the viewer

If you want CloudFront to cache different versions of your objects based on the language specified in the request, configure CloudFront to forward the Accept-Language header to your origin.

upvoted 1 times

✉  **CCNPWILL** 4 months, 2 weeks ago

TIE BREAKER .. COMBO!!!!

Answer is B. Caching is key along with NOT needing to restructure the current cloud architecture from instances to S3. The auto-scaling will work fine.

upvoted 4 times

 **Deeputhegreat** 4 months, 2 weeks ago

It's A

upvoted 1 times

 **toto059** 4 months, 2 weeks ago

it should be A

upvoted 3 times

 **ismai1** 4 months, 1 week ago

the company does not want to recreate the existing architecture across multiple Regions,

B is more correct

upvoted 3 times

 **cryogenic007** 2 months, 1 week ago

Also, the didn't say it's a static website to host on S3. That's why B is the answer.

upvoted 2 times

Question #300

Topic 1

A software vendor is deploying a new software-as-a-service (SaaS) solution that will be utilized by many AWS users. The service is hosted in a VPC behind a Network Load Balancer. The software vendor wants to provide access to this service to users with the least amount of administrative overhead and without exposing the service to the public internet. What should a solutions architect do to accomplish this goal?

- A. Create a peering VPC connection from each user's VPC to the software vendor's VPC.
- B. Deploy a transit VPC in the software vendor's AWS account. Create a VPN connection with each user account.
- C. Connect the service in the VPC with an AWS Private Link endpoint. Have users subscribe to the endpoint.
- D. Deploy a transit VPC in the software vendor's AWS account. Create an AWS Direct Connect connection with each user account.

Correct Answer: C

✉  **DrCloud** Highly Voted 4 months, 2 weeks ago

Ans: C

<https://docs.aws.amazon.com/vpc/latest/userguide/endpoint-service.html>

VPC endpoint services (AWS PrivateLink)

1. You can create your own application in your VPC and configure it as an AWS PrivateLink-powered service (referred to as an endpoint service).
2. Other AWS principals can create a connection from their VPC to your endpoint service using an interface VPC endpoint or a Gateway Load Balancer endpoint, depending on the type of service.
3. You are the service provider, and the AWS principals that create connections to your service are service consumers.

upvoted 19 times

✉  **syscao** 2 months, 1 week ago

C looks good. not sure what "Have users subscribe to the endpoint" mean though

upvoted 1 times

✉  **noahsark** 3 months, 3 weeks ago

Diagram here:

https://d1.awsstatic.com/product-marketing/PrivateLink/privateLink_how-it-works.a8ae3df6830296337b30a7c4e75d8eed403eb5d2.png

upvoted 8 times

✉  **Gupshup** Highly Voted 1 month, 1 week ago

Answer: C

Least Amount admin -> Private Link Endpoint

Not Exposing to Public Internet -> Endpoint

upvoted 6 times

✉  **syu31svc** Most Recent 2 months, 4 weeks ago

I would take C based on the key part "least amount of administrative overhead" from the qn

The other options already indicate a good amount of effort involved for the set up

upvoted 2 times

✉  **Praps1** 3 months ago

why not B by using VPN?

upvoted 1 times

✉  **mahdeo01** 6 days, 11 hours ago

because questions specifically says "without exposing the service to the public internet " & VPN is an internet based service.

upvoted 1 times

✉  **MilesAway** 4 months, 2 weeks ago

B looks right. When there are many connections, a hub and spoke configuration is best. That's how a transit gateway is used.

upvoted 3 times

✉  **CCNPWILL** 4 months, 2 weeks ago

that will have the data cross the internet. We need a PrivateLink for our traffic not to traverse the www. Answer is C.

upvoted 5 times

✉  **CountryGent** 4 months, 2 weeks ago

C for sure

upvoted 1 times

✉  **toto059** 4 months, 2 weeks ago

C is right

upvoted 5 times